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PSYCHOLOGY

VOL. II.

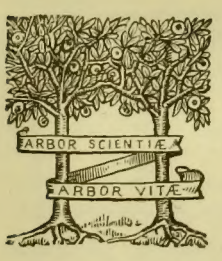
PSYCHOLOGY

BY

ANTONIO ROSMINI SERBATI

VOL. II.

NEW AND CHEAPER EDITION



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PART II.

DEVELOPMENT OF THE HUMAN SOUL.

Κόσμου κόσμος.—Constit. Ap. L. vii, c. 34.

731. The First Part of Psychology, treating of the essence of the human soul, belongs to antiquity, the

☞ To the list of *Errata* which will be found at the last page of this Volume, the following must be added :—

p. ix, l. 31,
p. 146, l. 1 and 2, } for *theoretic* read *theoric*.*
p. 149, col. iv,

p. 289, l. 18, for τομβεβηκος read συμβεβηκος.

* This word (*teorica*) is here employed by the Author in the sense of "supernatural."—See p. 149, col. iv. (Tr.)

remaining necessarily united to the root which produces them, whereas the reflection and attention of the philo-

sopher who wanders far from his original subject, at last forgets, from a kind of limitation and fatigue, the point from which it set out, and to which, therefore, it ought to return. And this forgetfulness is the decay of philosophy, which, having abandoned the essences of things, so eagerly and generously sought at the first, comes gradually to confine itself to their efficiences and effects. For these, when separated from their first and substantial cause, remain vain phenomena, inexplicable appearances. This circumstance explains why, after most flourishing periods of profound philosophy, in which there shine forth upon all the world minds of the highest nobility, courage and sublimity, rapt by divine enthusiasm to the contemplation of the true, and reaching across the centuries, there follows what, at first sight, would seem impossible: progress itself brings about other periods, in which philosophy, the heir of so many monuments and of so many ancient truths, appears, nevertheless, altogether superficial, material, lifeless, without a spark of genius to warm it. It was in this degraded condition, ragged and neglected, yet still proud, that it wandered through our streets in the eighteenth century. Though many causes contributed to reduce it to this miserable condition, the principal and deepest seems to us to have been the psychological one to which we have referred, and to which the others are, perhaps, related as effects or secondary causes. It seems to us that this unfortunate condition of things was not due to the want of powerful minds, since the abundance of such minds is plainly evidenced by the great social revolutions that took place in those times, as well as by the flourishing condition of the sciences, the arts and commerce, but to the above-mentioned law of mental progress, which from generation to generation passes through a series of thoughts so ordered that the first deals with the nature of things, and the rest, in slow succession, with the operations and acts of the different natures; the result of which is that the last, being farthest from the first, and taking entire possession of the minds of men, withdraw them from the thoughts

that went before, and especially turn their attention away from the first act which generates the whole series, thus breaking the chain of scientific truths, and rendering human knowledge, one hardly sees why, superficial and ignoble. The mysterious reason lies simply in this, that the ultimate truths, the final conclusions, have neither value, stability, nor reason, from the moment they cease to relate themselves to their immovable principle, that is, to the nature and essence of things. The philosophy of last century confessed that it lacked this firmest of bases, even boasting of its shame; for the philosophers of that time gloried in nothing so much as in declaring "that they did not wish to enter into any discussion regarding the essence" of things, and in proclaiming, with an overbearing pride which aped humility, that "the essence of things is unthinkable"—a maxim which is the true principle, the source, of all superficial knowledge.*

But that most vain period of philosophical superficiality, that is, of materiality and sensism, is now, thank God! past, or, at least, is passing, and men are already beginning to feel that the broken chain must again be united, and all its links securely fastened together from the first to the last. To aid this most useful and necessary work, we have directed our efforts, as best we could; and, therefore, to the modern part of psychology, which deals with the development of the soul, and which still remains to be expounded, we have prefixed the ancient part, which deals with the essence of the soul, and which is almost entirely forgotten in ordinary treatises, refashioning and restoring it in such a way as (we trust) will not offend the taste of our contemporaries.

732. The advantage which science derives, and the perfection which it acquires from this mode of treatment, will appear in the sequel. At present, without further preamble, let us place before the readers the principal division of this Second Part, on which we are about to enter, of our psychological investigations.

* *Theodicy*, no. 138.

When we undertake to trace accurately the development of the human soul, and to construct a theory of this development, two questions of equal moment and equal urgency present themselves to us:

1.° What acts, powers, functions, habits, does the human soul of itself produce?

2.° What laws does the human soul follow in this its continual production and operation?

733. Of these two questions, the first calls for *analytic* reasoning, because its purpose is to break up, so to speak, the essence of the human soul into all the various activities of which it is made up; the second, on the contrary, calls for a *synthetic* process, because it seeks to unite, under certain universal laws, the different modes of action through which the soul continually diffuses itself, thus reducing the infinite multitude of its acts to the simplicity of the norms which nature lays down for them, and from which they never deviate.

From this it is manifest that the total material which we have in hand naturally falls into two parts, of which the first, setting out from the essence of the soul, proceeds to consider its very varied operations; whereas the second sets out with these operations themselves, and endeavours to reduce them all at last to that same unity of essence from which they issued and in which they rest.

734. Let us, then, first investigate the activities of the human soul.

In this investigation we purpose not merely to enumerate these activities historically, but rather to deduce them, to show how they issue from the essence of the subject to which they belong. Hence our task again divides itself into two questions: (1) In what manner are the different activities of the soul contained in its essence and distinguished from it? and (2), What are these activities, and in what way may they be enumerated and classified?

BOOK I.

(ANALYTIC.)

ON THE ACTIVITY OF THE HUMAN SOUL.—HOW THE VARIOUS ACTIVITIES OF THE SOUL ARE DISTINGUISHED FROM ITS ESSENCE.

CHAPTER I.

WITHOUT A THEORY OF THE ESSENCE OF THE SOUL, IT WOULD BE IMPOSSIBLE TO DEDUCE THE VARIOUS HUMAN ACTIVITIES.

735. The ancients said that the powers of the human soul are known only from its acts.* They even went further and laid down the general rule that "Directly, only the actuality of beings is cognizable; and through it alone can we ascertain what lies within them potentially" —a most excellent dialectical and ontological principle,† which shows the error (above alluded to) of those philosophers who, in treating of the soul, set out with its powers as something known, instead of setting out with observation of its acts. Why, then, it may be asked, have you begun your task with a treatment of the essence of the soul?

736. I reply: It is true that acts come to our knowledge before powers, but not that they come before essence.

* *New Essay*, vol. ii, no. 528, note 2. *Anthropology*, Bk. III, sec. ii, nos. 567 sqq.

† Aristotle, *Metaph.*, ix; 1051 a 29 sq. St. Thomas, *Lib. de Causis*, Lesson vi.

Along with the acts is known the essence which in these acts remains undivided. But, although the act and the essence are known at the same time, the two knowledges, nevertheless, stand to each other in a logical order, so that the essence is known first, and, in and through it, the accidental acts (no. 116). It is, indeed, an illusion to suppose that we can know an act without knowing, in some way, the being whose act it is, that is, without referring it to its subject. The truth is, no act can be perceived or known by us except as an entity, and, therefore, we must either take the act itself as an entity, or else we must think something else, in which and through which it is. This we have demonstrated at length elsewhere.* We, therefore, make use of the acts in which the essence of the soul issues, as a means of acquiring a knowledge of this essence; but we must first of all speak of the essence as the first and natural foundation of all other psychological knowledge. This shows very clearly the defect of those psychological treatises, which either altogether omit to treat, or treat only in a very superficial way, the essence of the soul, as something of small importance and use, or which even go so far as to declare openly that they do not know what to say about it.

737. Besides this, the authors of those works have no principle from which rationally to deduce the human powers and faculties, so that the best they can do is to make a sort of enumeration of them, empirical, arbitrary, casual, inconsequent. They cannot show the nexus or the unity which holds them together and is due to their common origin; they cannot find any explanation of why there should be just a given number, and no more; they cannot show their internal relations; and yet without these things there is no theory of the soul. Again, how can these authors solve the apparent contradiction between the simplicity of the soul and the multitude of its powers and operations?

738. This contradiction is easily solved, when we know

* *New Essay*, vol. ii, nos. 410-412, &c. *Philosophical System*, nos. 90-93.

that the essence of the soul consists solely in its being the *first principle* (nos. 127-129) of its operations, and that a real principle may have a single activity capable of producing a variety of effects (nos. 140-183).

But we know, further, that a being, an entity, or several entities may exist in another being, provided this being is spiritual in its nature. The contrary is true of the reciprocal relations of bodies, whose nature it is to be impenetrable. We discovered this most important ontological truth by directly examining the facts with that intellective observation which alone furnishes the first data of science. This same truth brought us naturally to the theory of individuality, because a principle individuates itself through the relations, active, passive and receptive, which it holds to what is foreign in it, or, more generally, to what is its term (nos. 560-584). The truths thus discovered led us to inquire what terms and what foreign entities exist in the perfectly simple soul and, in large measure, constitute it by individuating it. When these entities are made out and accurately described and enumerated, they explain to us how it happens that the one virtue of the soul, when referred to them, multiplies itself, and thus itself appears multiple in its acts and effects, without at the same time ceasing to be one in itself, that is, in the principle which constitutes its essence.

739. Hence, in the very essence of the soul we found all those elements that cause and that divide its activities, all the germs of its powers. We saw, indeed, that the human soul is the permanent seat of those entities that are different from it, but yet stand in diverse intimate relations to it: (1) *ideal being*, united to it through intuition, (2) *animality*, coupled with it by a fundamental, immanent perception. In this animality we distinguished several elements: (1) a *sensitive principle*, which, in like manner contains other entities which are foreign to it, and to which it is united through special relations of its own, (2) the *corporeal extended*, contained in said principle through the immanent relation of sensility, (3) *matter*, or a virtue which does not

act directly upon the sensitive principle, but upon the corporeal extended, and violently alters it in such a way as to be indirectly felt by the sensitive principle itself. Thus we have, in the very essence of the soul, all the roots of human activities, the ground of all the various powers and faculties; and these powers and faculties are by these roots distinguished and determined to be these rather than those, just so many, and neither one more nor one less. Such is the deduction of the human powers from the very essence of the soul. This essence, therefore, when thoroughly examined, furnishes the principle of their legitimate deduction.

740. But, inasmuch as the development of the soul is a kind of movement which leads it from one state to another, according as that which before was a mere potentiality issues in an act, it seems necessary and useful that here, before we proceed further, we should clear up the two notions of *power* and *act*, and, as preliminary to these, also the notions of *form* and *matter*. This we shall try to do in such a manner that the imperfection of philosophical language may not prove a stumbling block to us, and may not prevent the minds of those who pursue with us the laborious, but pleasant, path of these investigations, from finding the right road, without being turned by equivocal or ambiguous terms to the right or the left.

CHAPTER II.

ORIGIN OF THE ONTOLOGICAL NOTIONS OF MATTER AND FORM, POWER AND ACT.

741. The word *act* signifies any and every entity, and, so regarded, cannot be defined but must be assumed as known;* nevertheless, it does not signify entity merely, but entity *plus* a mental relation to *potentiality*. Now, the mind is led to this distinction between act and power by the experience it has of the contingent things with which it finds itself in communication. It, therefore, derives this distinction from the finite realities which fall within the senses; it finds it in feeling itself, which is reality. Hence we see that man could never deduce any such distinction *a priori* from "ideal being" which he intuites naturally, without some other aid, because the ideal being intuited by man imparts knowledge of *pure being*, and not, by itself alone, of the *mode* of being, or of the order which being contains within it. This order belongs altogether to *reality*, which is experienced in feeling.†

742. Hence it is that the inner order of being never reveals the whole of itself to man, because man, being a limited real, communicates only with a part of reality, and, even with that, in a limited mode.‡ This fact is what essentially limits human knowledge, and makes it incumbent upon the philosopher to set forth the ontological doctrines which he reaches through meditation, with the modesty befitting human nature, that is, "not claiming to describe completely the whole of being, or the whole

* *Anthropology*, nos. 10-13.
† *New Essay*, vol. iii, nos. 1438-1460. *Philosophical System*, nos. 22-30.
‡ *Theodicy*, nos. 397-410.

order of being, but recognising and confessing that his thought embraces only a minute part of that immense order—that part which it has been granted to human intelligence to know." This modesty is a religious duty of human nature as such. How much more is it a duty of the human individual, who, whatever be the excellence of his intellect, must still believe, unless he is given over to folly, that his investigations fall far short of the point attainable by the intelligence of the species?

743. We, therefore, fully conscious that we are collecting only those elements of the order of being that are presented to our cognition in that limited portion of *reality* which it is granted to us here below to perceive and experience, and that we are doing so only to the extent of the powers of our individual intelligence, must out of these fragments of doctrine, so to speak, construct that imperfect *ontology* which alone is granted to man generally, and to us in particular.

744. Now, the reality communicated to us is wholly comprised in our feeling. In this sphere, as we have elsewhere said,* as on a stage whose curtain has been raised, the mind is able to seize real beings; and those that do not play some part upon this stage of feeling, it cannot in any way perceive or in any way discover HOW they are constituted. We must, therefore, ask: What are those realities that are communicated to us in our feeling?

745. We have already found that they are reducible to three: (1) bodies, (2) the soul, in so far as it is sensitive in a corporeal way, and (3) the same soul in so far as it is intellective. These are the only realities *perceivable* by us.

Besides these, however, we have still ideality, which may be intuited, and is the means whereby in perception we know said *realities*.

746. Like all ontological notions, therefore, which relate to the *order of being*, the notions of *matter* and *form*, of *power* and *act*, must be derived from the experience which

* *Theodicy*, nos. 86, 87, 153.

we have of matter, of animal feeling, and of intellective feeling; and since all of these are finite and contingent, they can supply us only with notions belonging to the order of finite and contingent being, and consequently never adequate to infinite being except through a sort of analogy which we shall elsewhere explain.

CHAPTER III.

ORIGIN OF THE NOTION OF FIRST MATTER [MATERIA PRIMA].

ARTICLE I.

Reasoning enables us to distinguish BODY *from the* CORPOREAL PRINCIPLE.

747. Let us proceed to examine the conditions of that being which is called body. This we shall do briefly, referring the reader for details to the *Anthropology*, where we have dealt with this matter at length.

But first, let it be observed that we must consider body as it is immediately presented to us, because it is as so presented, and not otherwise, that it is designated by the word *body*. If, however, we choose by reasoning to infer that what we perceive presupposes some other antecedent virtue or entity, as the cause of what we perceive, we must remember that we have reserved for this immediate principle of body, which does not fall within perception, but seems to hide itself, standing behind the phenomena, the name of *corporeal principle*.* It is not, therefore, from this occult being, but from perceptible body, that we must draw the ontological notions of which we are in search.

ARTICLE II.

The Perception of Body furnishes us with three different entities, the FELT, *the* SENSIFEROUS, *the* FOREIGN FORCE.

748. In the *Anthropology* (no. 61), we distinguished between the *sensiferous*, which is the proximate cause of bodily sensions, and the *felt*, or sensible, which is the

* *New Essay*, vol. ii, nos. 855, 856.

extended term peculiar to feeling. But there we included under the term *sensiferous* both that virtue which immediately produces the *felt* in the fundamental feeling, and that virtue which, operating in the fundamental feeling, modifies it, and thus causes sensation. Now, however, that we are to push our analysis further, we must distinguish between these two virtues (which, nevertheless, are reducible to one activity operating in two ways, as we shall see), by means of two terms, and, therefore, while reserving the term *sensiferous* for that virtue which underlies the *felt* of the fundamental feeling, we shall give the name of *external force* to that virtue which modifies the fundamental feeling itself, calling forth transient sensations in it.

749. Now, having thus explained the language which we intend to use hereafter, we say that the perception of body furnishes us with three entities, closely connected with each other: (1) a *felt* extended, (2) an activity which concurs in immediately producing this extended felt in the soul, in other words, the sensiferous, and (3) a foreign force which violently modifies the felt extended.

750. The concept of the felt extended, joined to that of the sensiferous, is properly the concept of *corporeality*, whereas the concept of an agent causing a change in the felt is the concept of *materiality*.

751. The felt extended is perceived as a kind of property of the sensiferous, and along with it forms our own bodies; still we do not apply the name of body to it until we have cause to know its solidity, and this takes place only when to the *subjective experience* of the felt extended we are able to unite the data of *extra-subjective experience*, whereby we perceive the limits of our own bodies through *superficial* sensations.* But in every *extra-subjective experience*, besides perceiving our own bodies, we perceive also external force or matter, because we feel an impulse which changes our corporeal feeling, so that, in the same place where the new sensation arises, we also perceive an

* *Anthropology*, nos. 153-228.

agent external to our feeling, an agent which makes itself known by no other property than the virtue whereby it changes our felt [term].

752. Furthermore, we soon observe that the sensiferous, the immediate cause of the *felt* in us, has the power to change some other parts of the sensiferous, and consequently some other parts of our felt [term] itself; whence we conclude that our own body is *material*, or that it has the same property as the foreign force, of operating with violence.

753. But what is here said will not seem to furnish a rigorous demonstration of the identity of the foreign force with the sensiferous, since it is conceivable that in the same place there should be two different entities, the sensiferous and the foreign force; that the first should be productive of the felt, while the second was the cause of the violent change in the sensiferous, and that between these entities creative wisdom had placed a harmony of action, so admirable that both should manifest themselves at the same time, in the same place, according to certain laws. The truth is that, although the sensiferous producing the felt shows itself to be an agent acting on the sensitive principle, which is the soul, yet its action is widely different from that which is exercised on the agent itself, and makes it act in a different manner upon the soul. It seems, therefore, that we are here concerned with a series of four terms, the *soul*, which, in its own way, is passive; the *felt*, which is produced in the soul; the *sensiferous*, which produces it; and a *foreign force*, which changes the sensiferous—a force which is sometimes manifested in the same place with the felt and the sensiferous, sometimes in a different place. In these four elements we certainly include every concept of body and of matter possessed by man.

Let us, therefore, inquire and see whether or not there is, between the sensiferous and the foreign force, that identity of substance which is suggested by the fact that they occupy the same place, but is discountenanced by the difference of their effects.

ARTICLE III.

Difference between the Soul, the Sensiferous, and the Foreign Force.

754. In order that our inquiry may proceed with due order, and not leave behind any difficulty likely to complicate the argument or distract the attention of those who are following us, let us begin by clearly marking the difference between the soul and the sensiferous.

In the first place, the action of the soul, moving its own body, must be immediate, at least, on some part or parts of it, because there must be in our bodies a point at which the first motion is applied. Indeed, even if we suppose that we move our hands by means of the movement of the nerves which extend over them, and that the movement imparted to these nerves communicates itself longitudinally, we must at last come to one or more nervous extremities to which the movement is directly communicated by the soul itself.

755. In the second place, we must remember that the action of the soul upon the body has for its immediate term, not the *felt*, but the *sensiferous*, or the force which produces the felt. Indeed, the felt itself does not change, except in so far as the force or virtue which immediately produces it changes or moves, inasmuch as the *felt*, being passive, presupposes a sensiferous which produces it by an action either immanent or transient.

756. But the sensiferous is given to us in three modes:

1.° As the immediate cause of the felt, and, as such, it acts directly upon the soul, without any violence, because there is violence only when the action performed upon the soul is in opposition to the spontaneous action of the soul itself, and in the felt the soul even coöperates through that first spontaneous activity which we have called *vital instinct;**

2.° As receiving the action of the soul which modifies it. Indeed, when the soul, for example, through its imagination,

* *Anthropology*, Bk. III, sec. ii, chap. ii-vi, nos. 370-384.

produces to itself an internal sension or image, it then acts upon the sensiferous and modifies it in such a way that it produces that image, or that it ceases to produce one image and produces another; and in all those actions whereby the soul produces new corporeal feelings for itself, or changes them (which it does by the movement of its own body), the soul, by changing the sensiferous, changes the *felt* which the sensiferous immediately produces in it.* This also takes place without violence, in so far as regards the immediate action of the soul, because the change which takes place in the sensiferous, far from being opposed to the spontaneous action of the soul, agrees with it. Now, that this sensiferous which is changed by the immediate action of the soul, is identical with the first, is manifest, because it is nothing more or less than that which immediately produces the *felt* (terms) of the soul;

3.° Or, as receiving the impulse of an external force which violently changes it, without, at first, any spontaneous concurrence on the part of the soul; and the soul, being always active, when it does not coöperate in an action, is, for that very reason, opposed to it.†

757. Now, here, in these last two cases, we observe the difference between the *soul* and the *sensiferous*. The former is active, the latter passive. We see, likewise, the difference between the *soul* and the *foreign force;* inasmuch as, although both the soul and the foreign force are able to change the sensiferous, yet the action of the former is spontaneous, while that of the latter is violent. This is equivalent to saying that, in the one case, the human soul has the consciousness of being itself the agent, in the other, of being passive to an agent different from it.

* *Anthropology*, Bk. II, sec. i, chap. xvi-xviii, nos. 350-366.

† *Anthropology*, Bk. II, sec. ii, chap. ix, nos. 392-400.

ARTICLE IV.

The Body is an Extended Agent: the Corporeal Principle may be an Inextended Agent.

758. Now, if we consider that the sensiferous, which immediately produces the felt, is changed by two agents, the one of which is the soul, the other a force totally foreign to the soul, we understand at once that there is nothing to prevent this same foreign force from having a spiritual principle, since even the soul, which is a spiritual principle, is able to act and to change the sensiferous which produces the felt, and yet this fact does not prevent the felt from being extended, or its extension from existing naturally in a simple.* But, with respect to the operation of the soul, we know not only its term, which we see as extended, but also its principle, which we recognise as simple; whereas we know the foreign force only in its term, without perceiving its principle, since we perceive it only in the *felt*, which is changed by it. Perceiving this force, therefore, in its effect, which is the change of the sensiferous, the immediate cause of the felt, we cannot determine the nature of its principle by the mere perception which we have of it; that is, we cannot affirm that it is spiritual, although we may affirm that there is nothing unreasonable in supposing it to be so.

ARTICLE V.

Identity of Substance between the Sensiferous and the Foreign Force.

759. Leaving alone, for the present, the question: What in itself is the principle of this force which changes the sensiferous, the immediate cause of the *felt?* let us pass to this other: Can we prove this foreign force to be identical with the immediately sensiferous force?

We have observed that what is immediately sen-

* *Anthropology*, nos. 94-97.

siferous, considered as such, and not in what it may be in itself, presents extension, perfectly commensurate with that of the felt which it produces in the soul,* and this again proves that the sensiferous, as such, is not the soul, which is simple. Now the same argument further proves that the external force which changes that which is immediately sensiferous must have extension, and the same identical extension with that of the immediately sensiferous. It proves, moreover, that even the external force, in so far as it is merely such, is not spirit. But identity of extension is not properly identity of force, because identity of force cannot be derived except from identity of effect; and here the effects are different, since the effect of the immediately sensiferous is to produce the felt, whereas the effect of the external force is to change the sensiferous. We must, therefore, be able to demonstrate that the external force likewise is able to produce the felt immediately, for then only shall we have found the proof of the identity we are in search of. But in this way we do not advance far.

760. It is certainly true that, if one part of my own body acts upon another part, there is produced a sensation altogether similar to that which would be produced by an external body or the foreign force. What I mean by "my own body" is, of course, that in which I feel, that in which a (fundamental) *felt* is continually produced. Hence, in the same place with the felt there is a force which produces the same effect as the external force, that is, which changes that which is immediately sensiferous. We may therefore, so far, conclude that this force is of the same nature as the external force, since, as we have said, the identity of nature between such forces is inferred from the identity of their effects. Another identical effect is also to be found in these two forces: my body and any external body produce the same effects upon a third external body. But with respect to the identity between the sensiferous and this

* *New Essay*, vol. ii, nos. 841, 842.

foreign and violent force, there always remains the doubt already alluded to, that possibly in the same place with the felt there may at the same time be two different forces, the one sensiferous and the other changing the sensiferous, and that this second, and not the first, is identical with the external force. We must, therefore, find another way of showing that the sensiferous force and the force which changes the sensiferous are identical; since all that has been said only goes to show the identity of the space which they occupy and the inherence of the foreign force itself in the felt. Let us look for such a way.

761. The entire action of the sensitive soul has for its formal principle the felt: it therefore begins in the felt. The same spontaneity whereby the sensitive soul coöperates in feeling is that which has the power to change the sensiferous.* Assuming, therefore, that its action cannot go beyond the sensiferous, because it cannot go beyond the felt in which it inheres as its immediate and formal cause, we must see whether the soul can also immediately change the external or *foreign force*. The truth is, if the soul, by changing the sensiferous, changes also the foreign force, we shall be obliged to say that the sensiferous and the foreign force are identical, that is, are activities, of one and the same subject. Now this is precisely the case. The soul never changes its own felt except through movements produced in the parts of the body. But movement is a phenomenon belonging to the foreign force. If, therefore, the effect of the soul cannot go beyond the sensiferous, and yet the soul changes the foreign force, we must conclude that the *sensiferous* and the *foreign force* are identical, or that they belong to the same substantial subject. This proof is founded upon the principle that, if the effect of an action determined and limited to one entity appears also in another entity, we must say that the two entities are identical in substance.†

* *Anthropology*, Bk. II, sec. ii, chap. vi-ix, nos. 380-400.

† Still this argument does not yet preclude the possibility of a harmony, established by God, between the changing of the sensiferous and of the ex-

762. Another argument resting upon the same principle is drawn from the consideration that we understand how the external force, in which neither felt nor sensiferous is cognized, may produce the movement which is only a displacement of the external force itself; but we cannot understand how it can act on the sensiferous, without supposing that the sensiferous forms one substance with the foreign force. In fact, to imagine that the foreign force produces two actions so diverse as (1) to displace another external force (motion) and (2) to change the sensiferous, would be to confound two entirely different concepts of force, and, hence, to alter the concept of the pure foreign force, and to divide this force up into two forces, a division which must be excluded even by the principle which forbids the multiplying of entities without necessity. We must, therefore, conclude that the foreign force, in these two effects, which differ so widely from each other, acts upon one and the same substance, and that, therefore, the sensiferous and the foreign force are identical in nature.

763. A third argument is presented by the life of the first elements, the fact of which life we think we have sufficiently demonstrated (nos. 500-553). If we admit the existence of this life, we eradicate the entire difficulty, because there is then no longer any merely foreign force, since every foreign force has become sensiferous. And this very consequence seems a new proof of the truth of that opinion. But supposing the contrary, supposing that a certain part of matter is not animate, the fact of animation, which according to this hypothesis, brute matter receives, is still an argument that goes to prove the identity of the sensiferous with the foreign force, inasmuch as we observe that the foreign force which before did not present any phenomena but those of the displacement of another portion of a similar force, now becomes itself sensiferous. That it is this same force which becomes sensiferous, we may infer from this, that when brute force changes and alters the sensiferous

ternal force; but this mere possibility seems to be of no value, by reason of the law of parsimony according to which the Creator acts.

by means of a certain contact, very soon the *felt* extends to it; and since the sensiferous is wherever the *felt* is, it follows that wherever there is brute force, there the phenomena of the sensiferous also appear. It is true that *post hoc, ergo propter hoc* is not a valid argument; but if this argument is joined to the first, and we reflect that brute force thus comes within the power of the soul, the proof becomes rigorous.

764. A fourth argument may be drawn from the nature of *contact*. If two extended forces were simply contiguous in position, it could not be said that there was contact between them. The concept of contact presupposes a reciprocal action between the two forces, an action which, in the case of brute forces, manifests itself in the phenomenon of cohesion. But if we apply a brute force to a nerve, the effect of this cohesion or even impulse is *sensation*. Even if we admit that sensation is due to an internal motion of the sensory organ; still this motion could not arise, if the motion of the brute force had not passed into the sensiferous, which thus produces the alteration in the felt. If, therefore, the sensiferous communicates with brute force by means of motion and receives its action, it must itself also be an *extended* capable of motion and impulsion, and this is exactly what the concept of brute or foreign force reduces itself to.

ARTICLE VI.

How the Sensiferous and the Brute Force clothe themselves with the Felt.

765. These arguments prove identity of substance between the foreign force (matter) and the sensiferous. The concept of the latter is that of a living body, whereas brute force presents only the concept of inanimate body.

Now here, after having found out the relation between that which is immediately sensiferous and that which at first presents itself to our experience as pure brute or *foreign force*, let us see how the *sensiferous*, as well as the *brute force*, is, so to speak, clothed with the felt, in such a way that the

felt mingles with the sensiferous, giving the concept of *body*, and with brute force, giving the concept of *matter*.

766. As regards the sensiferous, it is plain that it must appear clothed with the felt, inasmuch as, being the immediate and proximate cause of the felt, it is present wherever the felt itself is, undivided from it, in fact, the term of the act of the agent which produces it.

767. But it is still somewhat difficult to understand how this intimate and individual union arises between the felt and the foreign or brute force, and this nexus is never sufficiently considered.

In the first instance, this takes place because the soul, in changing the sensiferous, changes it exactly where it is, that is in the same place that is occupied by the felt.* This identity of place causes the sensiferous necessarily to appear clothed with the same extension and qualities as the felt. Now to the foreign and brute force which produces sensations there is individually joined, for a similar reason, the felt with which it clothes itself. The fact is, when the change in the felt comes from a principle foreign to the soul, then this force is felt only where the felt, which it changes, is. Hence it is through the place itself in which it acts that the felt is united to it, and this is the reason why we attribute to external matter colour, smell, taste, and all the secondary qualities, which in truth are so many sensations of our own, or, to speak more correctly, are our own felt. But inasmuch as the foreign force manifests itself in this felt, we make one thing out of the two, because we perceive the two entities with one act and in the same identical extension.

Afterwards, when external bodies cease to act upon our bodies, we cannot imagine them otherwise than as they appeared to us in the act of perceiving them, because our perception of them is our only original and immediate manner of cognizing them. Hence even when they are separated from our senses we attribute to them the sen-

* The activity of the soul springs from the felt itself, as we have shown in the *Anthropology*.

sible qualities with which we invested them in the act of perception, for the reason that the memory of them is only the memory of perception.

ARTICLE VII.

In what sense philosophers are right in denying secondary qualities to bodies, and how the common-sense is right in attributing these to them.

768. When external bodies are already detached, and separated from our felt [term], and are no longer in the act of operating upon it, then we consider them as agents *potentially*. Now, how do we imagine them as separate? What do we mean by saying that they are separate from our felt term?

We mean that they exist in another place, different from that in which our felt term exists, and this happens through motion, as we have shown in the *Ideology*, and in the *Anthropology*. At the same time, although we think of them as no longer existing in the same place as our *felt*, but in another space, still we imagine that they have carried with them our felt term itself, for the reason already assigned, that in our original perception of them, they occupied the same space with the felt, and we perceived their force along with it by a single act of perception. But, since to consider them as having merely the power to act upon us, and to consider them as clothed and accompanied with the *felt*, involves a contradiction, philosophers, through reasoning, rightly strip material bodies of sensible qualities in act, and leave them only qualities in potentiality; that is, they conceive bodies as agents capable of modifying our feeling so as to produce sensations, but not as having in them a green or yellow colour, a bitter or sweet taste, a shrill or dull sound, &c., &c. In spite of this, it is most difficult mentally to make this separation, because potentiality is not determined or known except from the act which it produces, for which reason we must always refer material potentiality to sensation or to the felt, if we wish

to form a determinate concept of it. Now we cannot refer the power of modifying the felt to the felt itself, except by thinking the power as united to it in the act of modification, and, therefore, in the same way in which we first perceived and knew it as such, which means that we think the power as in act and individually joined to the felt through identity of place. Hence bodies always remain for us clothed with colour, sound, taste, or other modes of the felt, even when we imagine them shut up in a cupboard, into which no ray of light can enter, and through which no sensation can come to us; and even the philosopher finds difficulty in freeing himself from such imagination.

But afterwards, when reflection enables us to see that these qualities cannot belong to bodies when separated from our felt term, we come back with our reason, and conceive them as divided from it, and thus we finally form to ourselves the concept of brute matter, inanimate, and without the felt.*

769. More than this: the felt is opposed to the sentient, but it is found in the sentient, otherwise it would not be felt. But the external corporeal force which modifies the felt, when separated from the felt, having merely the power to act, is neither felt nor sentient; it, therefore, remains a mere *potentia*. Hence if we carefully observe the reasoning of men about bodies, we readily see that they make use alternately of two concepts of them without observing that they do so. Sometimes they speak of matter as an inanimate thing, to which they attribute nothing of what belongs to sensation; at other times, they attribute sensible qualities to a body, as if it were actually felt, without thinking that the felt is in the sentient, and that if we give the felt to a being, we must necessarily give it also a sentient principle.

* This concept is not found in children, who look upon everything as animate, as I hope to prove to a demonstration in the *Pedagogy* ("On the Supreme Principle of Method and some of its applications in the service of Education," Turin, 1857, p. 365.)

ARTICLE VIII.

Origin of the Concept of Material Substance.

770. But the concept of mere power (*potentia*) includes no relation except to the act or effect which it produces, which is a relation external to it. Hence *power* by itself does not include the act of its own *subsistence*. Now, the understanding can conceive no thing without conceiving the act whereby that thing subsists. This is proved by the *principle of cognition*. Inasmuch, therefore, as the understanding has to conceive a *power* capable of modifying the felt, and cannot attribute to this *power* either the act whereby the felt subsists, because *power* is separate from act, or the act whereby the sentient subsists, because the *power* is altogether alien to the sentient activity, the understanding is obliged to attribute to the power of modifying the felt an act of its own, otherwise it would not be able to conceive it. But this act is not known, nor is it the term of any perception, otherwise we should no longer have the concept of a *power*, but of an act. Hence the act is merely supposed in virtue of the law of the understanding itself. Still, this supposition is by no means groundless, or merely subjective. On the contrary, it is due to logical necessity, that is, to the *principle of cognition*, as we have elsewhere said ; * yet this act of subsistence remains something altogether unknown—something of which we know only the existence. Now, this act, thus conceived by way of supposition, is *material substance* whose existence becomes certain from logical necessity, but whose nature is occult. Nevertheless, we determine this occult element discovered by us, in such a way that we cannot confound it with any other entity, and we do this by means of its relation, because we know that such substance or act of subsistence is the *subject* of that *power* which, as sensiferous, changes the felt, and, as a foreign force, changes the sensiferous, inasmuch as the sensiferous and the foreign

* *New Essay*, vol. ii, nos. 559-566.

force are powers which unite in one substance, as has been shown.

771. The *principle of substance* may also be stated in the following form, which is more available for our present purpose: An act which passes, or is transient, in a being cannot be conceived without an act, physically anterior, which is not transient, and this act which is not transient is the substance whereby the act which does pass exists. That act which does not pass in a being is also called the first act, and it is the act whereby the whole being (the full essence) subsists. The act which passes is called the second act. How do we know the act that passes? By perceiving the effect that it produces in us, which effect presents itself to us as passive. Thus the felt which we experience in ourselves is a passivity of ours, a mode of ours, imposed upon us, and presupposing the act which produces this passivity in us, or which imposes upon us this mode, and such act is the sensiferous. But the sensiferous, as such, expressing an act that passes, and the act of the foreign force which changes the sensiferous, as well as that which changes the foreign force, being likewise acts, no one of these three acts can be conceived, unless a first act, which is substance, is previously supposed. The arguments, moreover, which we have brought forward show that all those three acts belong to the same substance, which is the substance of bodies.

772. However, it will be well here to observe that we must not allow ourselves to think that the mind passes first from the felt to the sensiferous, then from the sensiferous to the foreign force, then from this to another foreign force, and finally finds the substance through reasoning. On the contrary, with a single and perfectly simple act, such as *perception* is, it embraces at once all these terms, and begins to know them and to know the body, only when it has embraced them all, and not before, as we have shown in the *New Essay* and elsewhere.*

773. The material substance, or the first act, is, there-

* *Philosophical System*, nos. 90-98.

fore, something unknown, something of which we know only the second acts (the felt, the sensiferous, and the foreign force).

774. But the first act—the material being supposed, with all reason, by the mind—being determined for us only by its second acts, is thought by us as individually united to these. And since the effect of these second acts are the various felt terms, whose mode is extension, we individually unite these effects, although produced in another being, that is, in the sentient or soul, with the second acts, and hence also with the material substance, which thus becomes extended and furnished with all the sensible qualities.

ARTICLE IX.

How it is said that Extension belongs to the primary qualities of body.

775. But here we must carefully reflect upon the difference between *extension* and *sensations*. We have defined extension as "the mode of corporal feeling," and indeed it is as such that it is presented to us by observation, which seizes the concept of it at its origin, "since the true nature of the objects of our thought does not become clear unless we go back to the first origin of the formation of their concepts." Hence even measured extension belongs to feeling, and can be separated from it only by abstraction. How then does it come to pass that we have placed it among the primary qualities of bodies, that is, among those which furnish us with the essential concept of them ?†

It must be confessed that, if we were to strip the concept of body of all that is felt, we should at the same time, have stripped it of its extension, because its extension is thought only as the mode of the felt, and therefore as felt. But in this case the concept of body would altogether slip through our fingers, as well as the concept of matter, at least as they are conceived by all men and designated by these terms. We, on the other hand, have always undertaken to speak

* *New Essay*, vol. ii, nos. 749-753. † *New Essay*, vol. ii, nos. 882-900.

of things as men perceive and express them. Inasmuch, therefore, as we must use ordinary terms, and these express the things conceived by the common sense of men which is based upon perception; if we were to use these words to signify something else, we should falsify their meaning and introduce endless ambiguities and questions, in respect to which it would no longer be possible to come to an understanding. Hence, we have already defined body as "the proximate cause of sensations and the subject of sensible qualities."* According to this definition, the body is the sensiferous, identical, as we have seen, with the foreign force. Now, to the sensiferous, as the proximate cause of our sensations, even when it is stripped of its sensible qualities, we must attribute extension, because we consider it wherever the felt is; but the felt is extended, and, therefore, its proximate cause must be "a virtue which, in respect to its act, diffuses itself in the same extension as that of the felt, the active being found wherever the passive is." This is the proof offered by us of the extension of body.† It may be objected, that the sensiferous, not being properly the substance, but an act of the substance, which is known by reason of its term, and *body* being a substantive noun, that is, a noun expressing substance, we cannot attribute to body (substance) that attribute which belongs to the term of its sensiferous action. To this we reply that we take the sensiferous as substance, being compelled to do so if we wish to conceive it, although this does not authorize us to add anything to, or take anything away from the sensiferous. The addition is not and cannot be anything more than simply the means of knowing; it must simply be what is necessary to enable us to perceive the sensiferous intellectively, as a *being*. There remains to us, then, the conception of body as it is given in *perception*, and as it is designated by the term, all included in the sensiferous, and to this, as we have seen, belongs the concept of "force acting in extension, and, therefore, extended."

But if, after this, we wish by means of reflection to

* *New Essay*, vol. ii, no. 667. † *Ibid.*

ascend still higher, we shall most certainly find that the being which is the subject of the sensiferous virtue, when considered in itself and not as we perceive it, might be an inextended being; nay, we may infer that it is so from observing that extension belongs originally to the felt, and to the sentient, and therefore to the inextended.* But in this case, we should no longer be dealing with the concept of body, but with something else which we do not perceive, and which we have called the *corporeal principle.*

ARTICLE X.

Origin of the Concept of MATERIA PRIMA.

776. Up to this point our object has been to make sufficiently clear what body, as furnished to us by perception, as sensiferous and as foreign force, is. We have seen how this force, whether it manifests itself as sensiferous or as foreign, causes us to perceive it as extended in the term of its operation, and how on account of this extension it is called *body* (sensiferous), or *brute matter* (foreign force). We have seen how this foreign force becomes clothed with sensible qualities, and especially with the felt. We have seen, finally, how philosophical meditation rises from body to a *corporeal principle*, the unknown cause producing body as perceived by us. After all this, we may go on to show how we arrive at the opposite concepts of *form* and *matter*, which are not foreign to the common sense, and of which the ancient philosophers, generalizing them, made so much use in their philosophies.

In order to do this properly, we must observe the difference between the way in which we invest body (according to the concept of it given in perception) with *extension*, and the way in which we invest it with the *felt.*

777. Measured extension, as we have said, is the mode of the felt, and this mode always exists, although its limits, and, hence, its figure and magnitude, vary; but apart from

* *Anthropology*, Bk. II, sec. i, chap. vii, art. i, no. 1, nos. 94-96.

this, feeling itself varies specifically, varies completely; since colour is something specifically different from taste, and in the same kind of sensation, for example in sight, the sensation may frequently vary without any change in the mode of the extension,* since the same surface may present successively different colours and shades *ad infinitum*. If, therefore, we take measured extension in general, this is something invariable in corporeal sensation; that is, every bodily sensation has always some extension. This constancy of extension amid the variability of all the other marks or characteristics of the felt causes us to consider extension as something permanent—a permanent extended. And since the act whereby a thing subsists, that is, substance, is considered permanent relatively to its accidental acts, we come to attribute to body extension as a quality essential to it and as anterior to all its variable qualities.

Applying, therefore, the term *force*, or *corporeal force*, both to the sensiferous and to the foreign force, which we have shown to be identical, we may say that "an extended force" is that which is permanent and substantial in bodies. However, we must never forget that when we speak of extended force as the substance of bodies, our mind presupposes the first act necessary for the subsistence of said "extended force," and identifies it with the extended force, because it is merely trying to perceive this extended force, and not to search for what there may be beyond it. Hence the *corporeal principle* is not the corporeal substance of which all men speak when they pronounce the substantive noun *body*, but is an unknown principle lying behind this substance.

778. Before proceeding further, therefore, we must here consider attentively how we form the concepts of the various

* On account of this, some of the Schoolmen excluded the concept of matter from the definition of extension. St. Thomas writes: "*Cum ergo omnes dimensiones sint ejusdem speciei in quacumque materia sint, quia materia non intrat in definitionem earum*, &c." *Sentent.*, D. xii, q. iii, Solutio iii. To us it seems that the concept of matter does not enter at all into *unmeasured extension*, but for the concept of *measured extension* we must find something to determine its limits, and this must be matter, either real or imaginary, such as forms mathematical bodies. On the other hand there does not enter into the concept of matter the concept of measured or determinate extension.

substances which we *perceive*. *Perception* being an action which takes place in us, who are beings susceptible of receiving it, that is, of feeling and understanding it, this *action* in us is the *first thing* that we know of the agent, and, therefore, upon this we fix our minds, because we perceived nothing anterior to it. For this reason the action perceive becomes the basis, the first act of the substance which we think; that is to say, we erect this action into a being, supposing in it the mere act of subsistence, which is substance—an act which certainly is never absent, because, of course, that action subsists. The *first action*, therefore, the action perceived in the sense and thought by the mind as subsisting, is the human concept of substances;* and this concept is true, though it is limited, inasmuch as it does not enable us to rise to the absolutely first act, which is not perceptible by us, but only to an act first with relation to us, the act which we perceive. This act unquestionably subsists, and for this reason we designate it by a substantive noun. In a word, what we perceive is the *agent in act*, and this act may be a second act with respect to the agent in potentiality, although with respect to us it is a first act, and, therefore, to us is the agent itself.

The question relating to the acts that are anterior to perceived substances belongs to *Transcendental Philosophy* or *Theosophy*.

ARTICLE XI.

Concept of MATERIA PRIMA.

779. We come now to the concept of *materia prima* [πρώτη ὕλη]. The sensiferous and the foreign force appear to us as clothed, (1) with limited extension, (2) with limits to this extension, *i.e.* with figure, (3) with those sensible qualities which we have called secondary. These sensible qualities are perceived only in a figure; figure is perceived only in extension; finally, limited extension presents itself to us as indivisible from the sensiferous and the foreign force, in

* *New Essay*, vol. iii, p. iii, c. iv.

such sort that we cannot in any way conceive or think either the sensiferous or the foreign force without some extension. Hence, even in immediate perception, there is always and invariably extension, although the figure and the other sensible qualities may vary. Inasmuch, then, as limited extension (in general) belongs invariably to that which we first perceive and think, and inasmuch as the substantial essence is exactly "that which we first think" in a thing (n. 52), it follows, as we have said, that we declare the sensiferous and the extended force to be a substantial essence, and its figure and other sensible qualities to be accidents; and this substantial essence we call *body*.

But although these accidents are variable, some of them always accompany body. Hence it is that the substantial essence of body never exists alone; and in order to think it by itself we must make it become an object of our minds, and separate such accidents from it. The substantial essence of body is separate, therefore, only in our idea: it is an abstract which cannot be realized unless invested with certain accidents. For this reason, we say that the substantial essence of body has its accidents in potentiality; which means, that when any such idea becomes realized, it may and must be clothed with accidents, although it need not be clothed with all possible accidents, but only with certain ones.

780. But, if body is an extended force, we cannot well know its nature without knowing the nature of extension. Now, such is the nature of extension that, in imagination, it may be divided into parts, so that the force which is clothed with one part of this extension is altogether separate from the force which is clothed with another part of it, whether contiguous or not. This means that corporeal forces never act in each other, but always in their own extension, without ever going beyond it. Hence "the substantial essence of bodies" has the property, likewise essential, of being divisible into parts. It has not by itself any unity, since its acting *principle* is not seen, and is not body, and, if it exists, it belongs

to transcendental philosophy, as we have said; but it is, nevertheless, the action perceived by us in its term. This term, therefore, which is the action perceived by us, is essentially divisible, so that the entity which shows itself active in one part, in one extension, is not identical in number (but only in quality) with that entity which shows itself active in another part, in another extension. Now, here we have all the data from which to draw the concept of *materia prima.*

781. If we strip the corporeal force of all extension, it is annihilated for us, inasmuch as it no longer acts in any place:* it cannot, therefore, be the *materia prima*, because *materia prima* is not nothing.†

782. Further, first matter cannot be mere extension, because this cannot be really divided, being divisible only in imagination (554-559), whereas matter is susceptible of real division.

783. In the third place, the *materia prima* created by God and existing really, cannot be infinite. This furnishes a fresh proof that it is not extension, which is naturally perceived as immeasurable, and, therefore, infinite, just as it is conceived as immovable and not in potentiality with reference to any figure, it being merely the mind that draws figures in pure extension by means of imaginary signs, which signs are not extension itself.

784. In the fourth place, *materia prima* has no definite confines, because in such case it would have figure: nevertheless, it is a real being, which the mind conceives by abstracting from its limits. It therefore has limits and figures in potentiality.

785. In the fifth place, first matter has substantial and real parts in potentiality, that is, it *may* be divided into an indefinite number of parts, each of which is matter, the same in concept, different in reality, and this by reason of

* St. Thomas says that "*Materia prima per se est in loco, aut in locato, ut pars.*" (*Sentent.*, I, D. xxxvii, q. iii, art. i ad 2^{m}).

† Hence, St. Thomas says: "*Materia, licet recedat a Dei similitudine secundum suam potentialitatem, tamen in quantum vel sic esse habet, similitudinem quandam retinet divini esse*" (*Sum. Theol.*, Pt. I, q. xiv, art. xi ad 3^{m}).

the extended quality which is its mode of being, which mode is potential with reference to any dimension,* figure, form, or multiplicity.†

786. Hence we conclude:

1.° That the concept of *materia prima* is an abstract concept which, nevertheless, exhibits to the mind a first and still undetermined element of bodies, belonging to their reality, but incapable of subsisting without the addition of determinations.

787. Here be it observed that abstraction performs two offices: (a) it makes us think some element as realizable, but without its determinations (*thetic abstraction*), (b) it also makes us think something not realizable, as when it separates those things which cannot be separated without rendering what remains altogether inconceivable, as, for example, the centre of the circle without the circumference. the corporeal force without any, even generic, extension, &c. (*hypothetic abstraction*).

788. This second kind of abstractions, if we wish to reduce them to a general formula, may be defined as abstractions in which the abstracting process has taken away even the *power* to receive the determinations that are required to make them real.

Now, the concept of *materia prima* is not obtained by this second kind of abstraction, but by the first. Hence

789. 2.° *Materia prima* is an extended force which is capable

a. Of having a determinate quantity of extension;

b. Of having a determinate shape;

c. Of being divided into parts, each with its determinate quantity and figure;

d. Of having a determinate sensible.

790. 3.° Furthermore, *materia prima* is the *substance of*

* Determinate dimension does not enter into the definition of matter; but dimension in general does, because matter is not infinite.

† "*Materiam autem dividi in partes non convenit, nisi secundum quod intelligitur sub quantitate: qua remota remanet substantia indivisibilis, ut dicitur*" I. *Phys.* [text 15]. (St. Thomas, *Sum. Theol.*, Pt. I, q. l, a. ii). But here we must observe that in material things quantity in general cannot be removed without annihilating them.

bodies, and in this sense Aristotle is right in applying to it the name of substance. The determinations of quantity, figure, quantitative numerousness and sensibility, are so many conditions under which it may have the *act* of subsistence. These conditions, taken together, constitute the *form* of body.

791. Now, these determinations may vary; but in every case some or others of them are necessary.

In so far as they are necessary, they constitute the *substantial form* of the body conjointly with the act of substance. In other words, determinate extension or quantity, figure, and the sensible, in so far as they terminate or perfect the act which makes them subsist, which is the act of material substance from which they derive unity, are called the *substantial form of bodies.**

792. In so far again as they are variable, they constitute so many *accidental forms*, or accidents, and as such they are not considered in the unity of the substance that makes them subsist, but as separate from each other by abstraction.†

* "*Formam, loquendo de corporeis, recentiores cum veteribus physicis corpuscularibus collocant in principiis mechanicis, nempe figura, magnitudine, textura, positione, motu partium. His addit Buffonius* (*Observ. et Expér. sur la production des Animaux.*, vol. i, chap. iii) *impenetrabilitatem, divisibilitatem, communicationem motus: hæc quidem ad materiam constituendam concurrunt, non ad ejus formam, scilicet non efficiunt ut potius sit hæc quam alia*" (Baldinotti, *Metaphys. General.*, n. 850). But all this is inaccurate, because no distinction is made between what belongs (1) to the realization of matter, (2) to matter itself, (3) to the substantial form, (4) to accidental forms. To *realization* belong quantity, divisibility, locality, and hence, texture: these things properly belong neither to the matter nor to the form of bodies. To *matter* belong impenetrability, extension in general, and certain *dispositions*, that is, the aptitude to receive the substantial and accidental forms, and the consequences of its realization. To the *substantial form* belongs determinate shape, but not one shape rather than another, and a determinate felt, but not one rather than another. To the *accidental forms* belongs the choice of these forms and of these determinate felts.

† Ancient philosophers, it appears to me, did not distinguish between indeterminate extension which belongs to first matter, and determinate extension or extensive quantity, which does not belong to it. St. Thomas thus sets forth Plato's theory: "*Prima accidentia consequentia substantiam sunt quantitas et qualitas, et hæc duo proportionantur duobus principiis essentialibus substantiæ, scilicet formæ et materiæ, quia* QUANTITAS RESPONDET MATERIÆ, *unde magnum et parvum Plato posuit differentias materiæ, sed qualitas ex parte formæ*" (*Sentent.* IV, D. xii, q. i, art. i, ad 1). But why does the sainted doctor say that these entities are accidents which follow substance, and not that they enter, as essential, into its constitution? This is readily explained if we consider that the concept or *essence* of substance

793. 4.° The various elements of the corporeal nature have an order among themselves, which is this: 1.° There is force, whose essential mode is extensive quantity. Force cannot be considered as separated from extensive quantity except by an abstraction of the second order; in other words, when so separated, it remains an absurdity because it is force and yet lacks the necessary element of its constitution; it is force in potentiality, and force in potentiality is not the force conceived by us, which is in act. 2.° Extensive quantity has limits which determine a *figure;* figure, therefore, is in extension as limits are in the limited. 3.° Figure does not present itself to us without some felt, and although, by abstraction, we may prescind from any particular felt, yet we cannot prescind from the felt in general; so that the abstract figure is not a figure without any felt element, but a figure conceived as capable of being felt, without any determination as to the nature of the felt which it includes, since it may include several of them separately.

794. When, then, we think the abstract called force, we think extension along with it; but we leave this extension indeterminate, and this is the concept of *materia prima* [πρώτη ὕλη] of bodies.

795. When we think the less simple abstract of force with a determinate extension or extensive quantity, we

is different from its *realization*. Into the essence of substance, and, properly speaking, of matter, *quantity*, which is determinate extension, does not enter; but when substance *is realized*, this quantity is determined by the will of the Creator. Determinate extension or quantity, therefore, proceeds from the greater or less *realization* of matter. This further shows the truth of the dictum that "*quantitas dimensiva secundum suam rationem non dependet a materia sensibili, quamvis dependeat secundum suum esse, ideo in prædicando et subjiciendo accipit modum substantiæ et accidentis, unde lineam dicimus et quantitatem et quantam,*" &c. (*Ibid.* ad 2m.) *Secundum suam rationem* [κατὰ τὸν λόγον] means, according to its concept or essence, because we can think quantity as abstracted from sensible matter, or rather, we can think sensible matter apart from quantity, since in the idea of matter the quantity of matter is not determined. But *secundum suum esse* [κατὰ τὸ μέγεθος], that is, according to its realization, quantity depends upon sensible matter, because quantity is a mode of matter; and, *vice versa*, *matter*, in the concept of which no quality is assigned, and neither the more nor the less; if it is realized, it must receive a *quantum* from the will of him who realizes it. Whence we conclude that *extensive quantity* does not proceed either from the matter or from the form of bodies, but from their *reality*, and this reality from the will of the Creator.

think at the same time figure, but this is left indeterminate, and is *matter* with a given dimension (not *materia prima*).

796. When we think the still less simple abstract of matter with determinate quantity and figure, we think at the same time the felt; but we leave indeterminate what is its quality, or what are the sensible qualities it has.

797. When, finally, we think matter with quantity, figure and determinate felt, then we think fully formed body, matter along with form, the *full species*, the universal, but not abstract, idea of body.*

798. As to the *real* body itself, it is perceived intellectively when sensitive perception is united to the idea which corresponds to it, that is, to the full species.

799. That which is thought before its determinations is called the *subject of determinations;* hence *materia prima* is the first subject of all corporeal determinations: *extensive quantity* is taken as the dialectic subject of figure; *figure* as the dialectic subject of sensible qualities.

800. But, be it carefully observed that human reason

* St. Thomas tells us almost the same thing when he writes: "*Sciendum quod substantia corporalis habet quod sit subjectum accidentium ex materia sua,* CUI PRIMO INEST SUBJICI ALTERI (whence matter is also the subject of the substantial form). *Prima autem dispositio materiæ est* QUANTITAS (here it is to be observed that determinate quantity does not belong to matter, but is a superinduced disposition, whereas indeterminate quantity, that is, quantity capable of being determined, is essential to the concept of matter) *quia secundum ipsam attenditur divisio ejus et indivisio, et ita unitas et multitudo quæ sunt prima consequentia ejus; et propter hoc sunt dispositiones totius materiæ non hujus aut illius* (indeterminate *continuous quantity* and the unity of the continuous are an essential constituent of matter, but *discrete quantity*, that is, multiplicity, is not essential, except potentially, in so far as the continuous may always be thought as divided into several *continua*). *Unde omnia alia accidentia* MEDIANTE QUANTITATE *in substantia fundantur, et* QUANTITAS EST PRIUS EIS NATURALITER, *et ideo non claudit materiam sensibilem in ratione sua, quamvis claudat materiam intelligibilem, ut dicitur in VII. Metaphysicorum.*" By *sensible matter* is meant matter in so far as it is in potentiality with respect to sensible qualities; by *intelligible matter* is meant matter conceived as abstracted from this potentiality, and this implies that quantity in its definition presupposes matter as its subject, but we do not require to think this matter as the subject of such qualities, because they are thought subsequently to abstract quantity, so much so that quantity itself, when it is determined, is afterwards the subject of these qualities. Hence the saint refutes the error of Descartes, who made the substance of bodies extension, an error into which some of the Schoolmen fell: "*Unde ex hoc quidam decepti fuerunt ut crederent dimensiones esse substantiam rerum sensibilium, quia remotis qualitatibus nihil sensibile remanere videbant nisi quantitatem, quæ tamen secundum esse suum dependet a substantia,* SICUT ET ALIA ACCIDENTIA" (*Sentent.* IV, *Dist.* xii, q. i, a. 1).

pursues two opposite paths, or, to speak more correctly, pursues the same path in two opposite directions: it comes and goes. When it goes, it proceeds according to the natural and common order, and this is an analytic direction from the whole to the parts; when it returns, it proceeds according to the scientific and learned order, and this is a synthetic direction from the parts to the whole. This returning of the mind presupposes the previous going. The learned synthesis presupposes the vulgar analysis.

801. When from first matter we descend to real body, we return from the parts to the whole. The mind *(spirito)*, before travelling in this direction, must necessarily have travelled in the opposite direction, from the whole to the parts, and in this process the order of subjects and predicates is changed. First, then, there is the felt, then its figure, then its quantity. For this reason, figure is predicated of the felt, and quantity of figure; in other words, we say that figure is a mode of the felt, and extensive quantity a mode of figure. But matter being the proximate, actual cause of the felt, cannot be predicated. On the contrary, everything must be predicated of it, that is, predicated of the felt, which is the term of its act, in which it is perceived, and, therefore, it always remains true that figure, quantity and the felt are predicated of matter as its effects. Hence, in whichever direction the mind moves, matter has always the position of first subject, or substance. It can never be made a predicate, but only a subject.

CHAPTER IV.

CONCEPT OF FORM.

802. From what has been said, it appears that matter is the act * in which and by which bodies exist, that is, the act by which and in which corporeal qualities subsist; it is what we conceive first when thinking of bodies.

803. But since this act cannot be realized alone and free from all corporeal qualities that are conceived to be potentially in it, there is, clearly, something which perfects it, and this is the sum of those determinate qualities, which are included under the term *form*.

804. But since some qualities are variable, in so far as they are entirely necessary to enable us to think matter as realized, they are called the *substantial form* of body, because they likewise concur in constituting that act whereby the body can be conceived as fit to be realized; and in this sense it is said that the *form* also is substance, that is, that it goes to form part of substance.

805. Again, in so far as these qualities are variable, so that what is necessary to the subsistence of a body remains undetermined, in the sense that one or another of said qualities may alternatively be attributed to it, they are called *accidental forms*.

806. But since we may conceive bodies furnished with all qualities, both substantial and accidental, lacking nothing of the capacity for realization, and yet capable of being realized with greater or less magnitudes, or repeated with the same magnitude any number of times; we say that

* The word *act* expresses any entity, and its nature, in the present case, is derived from the nature of bodies, to which it refers, and which we have explained.

neither the *continuous* nor the *discrete quantity of matter* is determined by the concept of *matter* or by that of *form*, but by that of *realization*, which depends upon the free will of the Author who realizes bodies.

807. The first ground, therefore, in virtue of which all that is in a body is conceived as subsisting, is matter, which, for that reason, first receives the name of substance and of first subject. Hence, it is also the subject of the substantial form, as the latter is the subject of the accidents. *Realization*, on the other hand, has its ground, not in the body, but in the creative cause, and it is not the subject of the body but what makes the subject subsist.

CHAPTER V.

THE GREATEST PHILOSOPHERS WERE NOT CONSTANT IN THEIR USE OF THE TERMS *MATTER* AND *FIRST MATTER*.

808. Now that we have developed the concept of *first matter*, and found that it occurs in bodies, in which the perfection and ultimate acts of it are called *form*, we may show (since this results also from what was said in the first part) that such matter does not occur in the soul. But in order to avoid disputes about words, and also to furnish a key to the right understanding of the chief philosophers, it may be well to remark here that these philosophers did not always use the term *first matter* with precision or accurately fix the concept of it, as we have tried to do, but assigned different significations to the terms *matter* and *first matter*, the result of which was that they ran into apparent contradictions, as well as into hot and vain disputes.

ARTICLE I.

Some confounded Reality with First Matter.

809. In the first place, almost all the great philosophers confounded *first matter* with subsistent reality, from which we have distinguished it.

This was the case with Plato, who made *quantity* a dependence or consequence of matter, whereas quantity is not at all included in the concept of matter, being posited by the *realization* of it, and determined by the will of the Realizer.

810. This was the case also with Aristotle, who made matter the principle of individuation, whereas, this principle, as we have shown, ought to be attributed to *subsistent reality*,* which is always fully determined.

* *Anthropology*, Bk. IV, chap. i, art. 5, nos. 782-788. The fact that he confounded the concept of *matter* with the concept of reality, prevented his theory of the human intellect from attaining perfection. The intellect abstracts from the *reality of matter*, but not from *matter*. If this had been seen, a clear verbal separation would have been made between the *ideal* and the *real*, the former of which belongs to the intellect, the latter to sense. The Schoolmen said: "*Unumquodque intelligitur in quantum a materia abstrahitur, quia formæ in materia sunt individuales formæ, quas intellectus non apprehendit secundum quod hujusmodi.*" (St. Thomas, *Sum. Theol.*, Pt. I, qu. L, a. ii, *in corp.*) This statement is most true if we mean by *matter* reality, subsistence, but not if we mean matter proper. And, indeed, it is not merely matter that is realized, but also form; and the intellect does not even apprehend form when it is realized (*formæ individuales quas intellectus non apprehendit*). To say that realized forms are not apprehended because they are united to matter, is false; this happens only because they are realized, subsistent. On the other hand, matter, as well as form, are apprehended by the intellect, so long as they are ideal and not real. For example, in the concept of man there is both form and matter, and yet the intellect intuites this concept. But some of the Schoolmen denied this, and maintained that the species, or the idea, embraces only form, and this is in agreement with the theory which takes matter for reality, and makes said matter the principle of individuation. Now this was too glaring an absurdity. How was it to be avoided? In order to get rid of the difficulty, they distinguished two matters, the common or intelligible, and the particular, and in so doing they were forced to recognise that the *reality of matter* is something different from *the essence* or *idea of matter*. They ought, therefore, to have reserved the term *matter* to express essence, and then they would have perfected the language of philosophy; but, unfortunately, they were prevented from doing so by their reverence for Aristotle. Instead of this, they complicated it, by introducing two kinds of matter, that is, by giving to the term *matter* two significations, the one expressing the essence of matter, the other its realization. This renders many of their doctrines ambiguous, and gives rise to subtle and interminable questions. Let us listen to St. Thomas: "*Quidam putaverunt quod species rei naturalis* (the idea) *sit forma solum, et quod materia non sit pars speciei.* (This they were obliged to say, if by *matter* they meant the principle of individuation.) *Sed secundum hoc in definitionibus rerum naturalium non poneretur materia* (this absurdity is clearly recognised by the Sainted Doctor). *Et ideo aliter dicendum est quod materia est duplex, scilicet communis* (ideal matter), *et signata vel individualis* (real matter). *Communis quidem ut caro et os; individualis autem ut* HÆ (this is the pronoun indicating reality) *carnes, et* HÆC *ossa. Intellectus igitur abstrahit speciem rei naturalis a materia sensibili individuali, non autem a materia sensibili communi: sicut speciem hominis abstrahit ab his carnibus et his ossibus, quæ non sunt de ratione speciei, sed partes individui, ut dicitur in VII. Metaphysicorum* (text 34, 35) *et ideo sine eis considerari potest. Sed species hominis non potest abstrahi per intellectum a carnibus et ossibus*" (*Sum. Theol.*, Pt. I, q. lxxxv, art. 1). Be it observed, even on this passage, that when the denomination *individual matter* was given to the second kind of matter, the individuation was already supposed as given, whereas the cause of it was what was being sought for.

ARTICLE II.

Some Philosophers, using the second mode of abstraction (hypothetic abstraction) made matter an immaterial being.

811. Now, if, as we have seen, we remove from the concept of matter all thought of extension in general, this concept no longer expresses anything. We are then considering force by means of hypothetic, and no longer by means of thetic, abstraction. Hence even St. Thomas teaches, that, if we abstract from all extension, we thereby abstract from all matter. Let us consider his words:

"Mathematical species can be abstracted by the intellect from *sensible matter*, not only when it is *individual* (reality), but also when it is *common* (essence of matter). They cannot, on the other hand, be abstracted from common intelligible matter, but only from the individual. What is called sensible matter is corporeal matter in so far as it is subject to sensible qualities, *i.e.*, to cold and hot, to hard and soft, and the like. On the other hand, what is called intelligible matter is termed substance in so far as it underlies quantity (continuous). Now it is manifest that quantity exists in substance prior to sensible qualities. Whence quantity, as well as numbers (of course, the numbers of continuous quantities), the dimensions and the figures that are terms of quantities, may be considered without the sensible qualities, that is, may be abstracted from sensible qualities: still they cannot be considered without presupposing a substance underlying the quantity, for this would be to abstract them from common intelligible matter. On the other hand, they may be considered without this or that particular substance, for this is abstracting them from individual intelligible matter." * Let us stop here.

812. We have seen that there is a *first matter*, which is the force that acts in extension. This force is potential, (1) with reference to determinate extension or quantity,

* *Sum. Theol.*, Pt. I, q. lxxxv, art. 1, ad 2m.

which may be one or several, and hence numerable, (2) to figure, (3) to sensible qualities.

What are mathematical species? They are the figures, and their terms—superficies, line, point.

The mathematical species are not, therefore, *first matter*, but a matter already reduced to the act of quantity and figure, and so partly endowed with form. In considering it, we merely neglect the sensible qualities in relation to which it is potential; and it is precisely because it is potential that it is called matter. This is the *mathematical matter* of the Schoolmen. When, therefore, they say that in the concept of mathematical matter, we abstract from sensible matter, both individual and common, they mean that we abstract from the potentiality to sensible qualities, whether considered as real or as ideal. When, moreover, they say that we abstract from *individual intelligible matter*, they mean by individual intelligible matter determinate quantity and realized figure (with all that belongs to figure); but this is an improper way of speaking, because the Schoolmen themselves had already laid down that the *individual* is not conceived by the intellect, whence, in a way altogether inconsistent with their own doctrine, they posited a matter at once *intelligible* and *individual*.

But they gave the name of intelligible to this matter, because quantity and figure, when abstracted from the sensible, are purely objects of the intellect, not seeing that, as such, it is never individual, unless arbitrarily fixed in some part of space. Nevertheless, since what is in the intellect may be met with in reality, such denomination is not altogether vain. In saying that the concept of mathematical matter does not abstract from common intelligible matter, they mean that quantity and figure are considered by the mathematicians not merely as abstracted from sensible qualities, but also without being referred to a real body of possible realization. Now, let us see what follows. "Some things again there are that are abstracted from common intelligible matter, such as being, the potential one, act, and other things, which may be without any matter, as

we find in the separate substances."* Here we see at once that, as soon as we prescind from extension and from all continuous quantity, we are already outside of all matter; the concept of matter slips through our fingers altogether, and there remain only certain ultimate abstractions, which may be realized in matter or without it. There is, therefore, something anterior to matter, there is something of the nature of act or active power. The concept of matter, therefore, does not begin to arise in our minds until we think of a sensiferous power in extension.†

813. But this concept was not, as we have said, always held fast. Hence, when some of the Schoolmen say of matter that "*talis potentia non est ad operationem, sed ad esse,*‡" instead of saying *ad formam*, they enlarge the concept of matter, so that matter may belong to every creature, because every creature, even that which is spiritual, before it is, has the power *ad esse*, which means, the power to receive subsistence. According to this principle understood literally, matter is converted into "possible thing," which is the idea; and this must not be done, because, as we have shown, we have ideas of forms as well as of matter.

814. Hence some of the Schoolmen maintained that all things, visible and invisible, movable and immovable, corporeal and incorporeal, are composed of matter and form; but, as St. Thomas justly observes, this is taking the word matter in two significations, and not in its true and proper signification.‖

815. Those who take matter as a synonym for that which

* *Sum. Theol.*, Pt. I, q. lxxxv, art. 1.

† This proof of the thesis that, before matter there is some other principle, is drawn from the order of ideas, from the notion of matter, which we cannot conceive without thinking a previous actuality. St. Thomas proves the same thing by means of another argument, that is, from the necessity of an active principle to bring matter, which is only potential, into act. "*Principium materiale, quod apud nos imperfectum invenitur, non potest esse simpliciter primum, sed præceditur ab alio perfecto. Nam semen, licet sit principium animalis generati ex semine, tamen habet ante se animal vel plantam, unde deciditur. Oportet enim ante id quod est in potentia, esse aliquid in actu, cum ens in potentia non reducatur in actum, nisi per aliquod ens in actu.*" *Sum. Theol.*, Pt. I, q. iv, art. 1 ad 2m.

‡ St. Thomas, *Quæst. Quodlib.* x, qu. iii, a. v.

‖ *Materia dicitur æquivoce* (in two senses) *de mobilibus et immobilibus.* In *II. Sentent.*, D. II, q. ii, art. ii ad 4. See also *Quæst. Quodlib.* iii, q. viii, art. xx.

is *in potentia*, excluding from the concept all relation to extension, necessarily make it a being from which matter itself has been abstracted, and so it becomes indivisible, as is observed even by St. Thomas, who writes: "*Materiam autem dividi in partes non convenit, nisi secundum quod intelligitur sub quantitate; qua remota, remanet substantia indivisibilis, ut dicitur in Primo Physicorum,*" text 15,* where by *quantity* we must understand a particular determinate quantity, the determination being left indefinite.

ARTICLE III.

Is First Matter inert?

816. The philosophers of whom we have been speaking did not observe that the concept of matter exhibits to the intellect something having relation to extension, and, therefore, removing this relation from it by excessive abstraction, they destroyed the concept of matter, so that nothing remained in their hands but the concept of something immaterial and indivisible, which precedes that of matter.

There were others who did not entirely do away with the relation to extension, granting to matter the power of being moved in space; but they took away from it the power of exciting motion, and called it inert. Were these right?

817. The logical reason which led them to this thought was that they directed their attention to the phenomena of *material mass*, which presents itself to us as a movable, an entity very different from the sensiferous.

Now, inasmuch as material mass is sometimes in motion, and sometimes at rest, they inferred correctly that motion is not essential to it, and does not enter into the concept of it—that *matter* receives motion from another active principle different from it; and it is entirely certain that no body moves of itself, hence the principle of the motion of bodies must be sought elsewhere.

* *Sum.*, I, qu. l, a. ii.

818. But the extra-subjective phenomena of motion are not those that first present themselves in the concept of body. As we have seen, the first phenomenon is the felt, in which we have the intellective perception of the sensiferous, the concept of which is that of an activity exercised upon our souls and diffusing itself in the extension of the felt. This activity, therefore, which produces the felt indubitably exists, and is *first* in the concept of body; for which reason it is that which constitutes its cognizable and nameable essence. Now this same activity is also the subject of motion, which motion is nothing more than "the manifestation of the sensiferous in a felt which occupies an extension successively diverse." From this point of view, it is, therefore, true that the sensiferous is passive, that is, suited to receive and transmit motion, not to impart it.

819. Where, then, shall we find the principle of motion?

In the first place, we find it in the soul, which changes the sensiferous in place.

We understand, likewise, that, outside of the human soul there must be some other principle to produce it: this is shown by the phenomenon of attraction.

We understand, in the third place, that this principle of motion outside the human soul can neither be the material mass nor the foreign force, because, if this does not receive motion, it cannot transmit it to another force. It must, therefore, already have received motion into itself, and cannot produce it or be its principle.

820. Can, then, that which we have called *corporeal principle* be the principle of motion?

In order to answer this question, we must examine the concept of corporeal principle. We arrived at this concept from seeing that the *felt*, as well as the sensiferous force which we perceive in it, is only the term of an action performed in our souls, and we do not know what the agent is in itself, that is, in its principle, inasmuch as we know it only from its living action in its term. Not knowing, then, the principle of this action, we have given it the name of *corporeal principle*. Now, according to this concept, we

know that the corporeal principle is the principle of that action which we have called sensiferous, designating it a being, in order to be able to conceive it intellectively. But this action upon the soul is not yet motion, whose nature consists in displacing the sensiferous. Hence we cannot even affirm that it is the *corporeal principle.*

821. We will not here speak of the faculty of transmitting motion, which properly constitutes the *foreign force* and the *mass*—a faculty which must undoubtedly be attributed to the corporeal principle, as its subject. What we are looking for is solely the principle of motion.

822. Now the opinion that we have set forth in the first part of this work, that every material element is the term of a sentient principle, places a principle of motion in nature; it explains the natural movements of bodies without calling in the aid of God as a second cause, and reconciles the great and ever agitated question regarding the inertia and activity of matter.

The truth is, some philosophers directing their attention to the concept of matter, found contradiction in the idea that it should be the cause of motion, and these, in our opinion, were completely right. Others, seeing that all nature is in motion, and that we are presented with phenomena not only of impact, but also of attraction, expansion, elasticity, &c., and shrinking from calling in the immediate action of God to explain them, and not knowing any other cause to appeal to, made matter active, without observing that the attribution of such activity conflicts with the concept of it which we receive from perception; nevertheless, they were right in this that they recognised, scattered through all nature, a principle of spontaneous motion. This confirms the opinion which we have indicated concerning the animation of matter, inasmuch as it shows it to be that which most happily and without absurdity explains all natural phenomena.*

* See Cudworth, *Intellectual System*, &c., chap. i, no. 1.

CHAPTER VI.

ON THE INTIMATE UNION OF THE SPIRIT WITH MATTER.

823. The reason why the concept of matter (and the same is true of the concept of body) does not furnish us with the principle of motion, is that we derive the concept of matter and of body from perception, and perception shows us the act in its term (the felt) and not in its principle.

This term (the felt) is extended, and when this felt extension is displaced, then there is motion; but this displacement of the term is not the term itself, because the term is perceived when it is already constituted, not before, for the reason that before this it is not term, and not felt. On the contrary, the action which displaces the term, transporting it from one place to another, is an action anterior to the constitution of the term (to the felt), and, hence, does not fall under perception.

824. Now, if we consider that the term (the felt) from which alone we derive the concept of mass, body, matter, and also of foreign force, because it is the only one of which we have experience, is something that we feel in our own spirit, in the sentient principle; we cannot doubt that the spirit itself coöperates with the sensiferous in the production of it, since the sentient principle receives the action in its own particular mode, which is that of being an active principle. But in what respect does the sentient principle coöperate in this? No doubt, it coöperates in every respect, that is, in both elements, which are (1) the sensible, (2) its mode, which is extension. It coöperates to produce the sensible, because, where there is no sentient principle, there can be no feeling. It coöperates to produce its mode

that is, extension, because extension, or the continuous, can exist only in the simple.

825. What then can the sensiferous do? Nothing else, of course, than excite the spirit to produce the felt with its mode, that is, extension. But this is the transcendent concept of the sensiferous, a concept which shows the sensiferous in its principle, in the corporeal principle. This, then, helps to explain how matter and its concept are generated, but is not, itself, the concept of matter.

826. We see, therefore, that matter, as given to us in perception (the common or vulgar concept), contains not a little that is subjective, and that we must be careful not to talk about it as if said concept of matter had some truth even outside of perception. It is true, but only in perception. If we ask what matter is outside of perception, matter vanishes: we are no longer speaking about that of which all the world speaks; for all the world speaks of matter as perceived. Thus even the senses do not delude us, if reason recognises in them what they give and no more; but if we pretend that the senses furnish us with what they were not made to furnish, we at once fall into error, and it is no longer the senses that err, but the reason, which pronounces judgment outside of what the sensible data present to it.

827. In the second place, it will be well to meditate on the transcendent concept of matter, or, more correctly, on the transcendent concept of that entity which corresponds to the common concept of matter, in order that through it we may understand how closely the things of nature are connected with each other, and, to take the case in point, how closely the spirit is connected with the corporeal principle, and how from their connection and mutual action there spring certain entities,* which, when we conceive them isolatedly, we consider as beings or substances. And this we do with good reason, because, in so doing,

* This is another example of that natural *synthesism* of which we have spoken in several places, *e.g.*, *Principles of Moral Science*, chap. ii; *Comparative and Critical History of Systems relating to the Principle of Morals*, chap. viii, art. iii, no. 7; *Anthropology*, Bk. II, sec. i, chap. xi, xii, nos. 258-268.

we do not pronounce on their nature, but merely say that they are that first act which we perceive, in and by which many second acts subsist, since substance is the first act, which makes a thing subsist.

828. Hence this word *substance* has two significations, the one transcendent and expressing that act which is absolutely first and makes all things subsist, and, in this signification, the word applies only to God; the other common and expressing that act of the entity perceived by us which is first in our perception, and in this signification relative to us we distinguish a variety of substances, which we may properly call, not *absolute*, but *relative substances;* and in this sense matter also is substance.

829. Finally, the distinction between the two concepts, that is, between the concept of matter and the transcendent concept corresponding to it, aids us immensely in explaining how the different opinions of philosophers respecting matter arose, as well as in reconciling them.

CHAPTER VII.

THE HUMAN SOUL IS FREE FROM ALL MATTER.

ARTICLE I.

Proof.

830. Now that we have cleared up the concepts of matter and first matter, it will be easy to show that the human soul is entirely free from all matter.

In fact, to summarize what has been said, the concept of matter results from several elements.

1.° It presents to us an activity in act in its *term* and not in its principle;

2.° It presents to us an extension, a mass, as the mode of this activity in act in its term;

3.° It presents us with mobility, that is, with the aptitude to receive and transmit motion, not the aptitude to produce it; because to receive and transmit motion belongs to the term, to produce it, to the principle of activity. Now all these things are at variance with the concept of soul.

831. In truth, the soul, as we have defined it, is "a principle sentient, rational, and active according to feeling and rationality."

Now this definition places not only a difference, but a true opposition, between the concept of soul and that of matter. The soul is the *principle* of act, and matter has only the relation of *term*.

The soul, as principle, is inextended, but matter has, for its peculiar and essential condition, extension, mass.

The soul, as principle, can excite motion, but is not

movable: it is a principle of motion, but is itself immovable.

Hence the soul excludes from itself all the elements that go to constitute the concept of matter.

832. Perhaps at the first glance it may not be understood how the soul is *immovable.*

In order to understand this, we must carefully reflect that everything that is moved has the nature of a term, because movement is the term of the motor action.

833. In the second place, motion takes place only in extension. But the soul is not in extension, either as a continuous solid, or as lines, or as points, which are merely the abstract limits of the solid, and, therefore, belong to the solid. In fact, the solid, and, therefore, likewise its limits, exist only in the simple, whence by the greatest philosophers the soul is said to be that which contains the continuous, and not that which is contained by it.* Hence as the continuous solid is in the soul without being the soul, since it even stands in opposition to the soul, as term is in opposition to principle, and object to subject (and this through that connection and communication of substances which constitute the synthesism of nature), we may well say that motion takes place in that continuous which is in the soul, but never in the soul itself, which contains in itself its continuous term.

834. It may be objected that, when the body is transported from one place to another the soul is transported with it. But this is not true. The soul is not transported: nothing arises but a new relation between its body and the place occupied by its body. It is this, and not the soul, that changes. But when the body of the soul finds itself in relation with other external objects and with other space, it seems as if the soul were transported along with

* That the soul contains the body was proved also from the nature of the act which it exercises upon the body. Hence, St. Isidore, of Pelusium, writes: "*Nam quæ corpus, quod semper fluit et corrumpitur,* ARRIPIT, *ac quod in eo labile ac mortale est* ASTRINGIT, *et quod cadit, excitat, atque iis quæ diffluunt alimentum, et iis quæ marcescunt fructificationem præbet, non est profecto consentaneum eam a corpore separatam vim suam deserere, per quam et corpus* CONTINEBAT *et* CONSERVABAT" (*Epist.* Bk. III, chap. ccxxxv).

the body, whereas all that has been moved is the felt [term] of the soul, and not the sentient principle. The truth is, all the felt that supervenes to the soul through movement is in the soul, as the felt which has passed away. Here, be it observed, that under the term felt is included the place of the soul's own body, and that the soul, on the other hand, is present to the whole of space (nos. 554-559).*

ARTICLE II.

The Soul is a principle-being, matter a term-being.

835. The notion of matter, then, implies an activity considered in the term of its action. And since the term of an action is that which *is done*, and not that which *does*, matter has in it the concept of passive power, and not of active power.†

836. But the concept of matter implies, not only an activity resting in its term, but also this term considered as a being, a term-being. The reason of this is, that the understanding, by reason of the principle of cognition, conceives nothing, except as a being. And the being is added to the first element of an entity that is perceived.

* St. Thomas adduces two arguments to prove that the soul is not composed of matter and form. The first is derived from the fact that the soul is *form*, and, therefore, if it contained matter, this material part would not be the soul. This argument coincides with the one advanced by us, that the soul is a principle of acts, and matter merely a term. The other (which holds good only for the intellective soul) is drawn from the fact that the intellect understands only by abstracting from *matter;* but in this argument, *matter* is taken as a synonym for *reality*, and hence in another signification (*Sum. Theol.*, Pt. I, q. lxxv, art. v. *Quæst. Quodlib.*, III, art. xx). Besides this, St. Thomas sets out from this definition of matter, *illud quod est in potentiâ tantum*, a definition which answers only for things considered in their possibility or idea, and is consistent in this, that matter is again taken as a synonym for reality, because reality in the idea is only potential. But among possible things there is not only matter, but also the soul, whence, if we start with this definition, the argument does not seem cogent, although at bottom it is true.

† Matter, being a term-being, retains its designation even in the order of cognitions, and hence we say that the felt is the *matter* of cognition. But when we say that every object is matter of cognition, then we give to matter a translated and relative designation: *i.e.*, we call it the *matter* of cognition, because it is its term. If, on the other hand, we consider *ideal being* not as the object, but as the means, of knowing, as that in which is known all that is known, it is essentially *form*, and can in no sense receive the designation of matter, especially since it admits no passivity.

If, therefore, we perceive a term-entity, and nothing before it, our concept has for its object a term-being; and in this term-being, what is conceived as first, as the first act of being, containing all the rest that can be distinguished in it, is called *act*, or *substance*, or *subject*.

837. In two ways, therefore, we perceive beings, as principles and as terms.

We perceive beings as terms, when we are passive and receive their activity in our feeling. We then perceive the activity in us as in the term of action, and we infer the nature of the being perceived from the nature of that term, the only thing which we perceive. This is what takes place in the perception of bodies.

838. The being which we perceive as a principle of activity is none other than ourselves—the soul, which is perceived as a peculiar feeling in which that which we think as the first act, wherein subsist all the rest that can be distinguished in it, is substance, subject. The soul, therefore, is a principle-being.

839. It is true that, besides this, the soul perceives itself likewise as term, because, in perceiving itself as a feeling—which involves a passivity—it understands that its own existence must have a cause, and thus rises to the thought of the Creator. Nevertheless, it perceives itself also as an active principle, and it is from this point of view that the concept of it stands in opposition to the concept of body, which is perceived solely as a term-being, and not as a principle-being.

CHAPTER VIII.

INTRINSIC ORDER OF BEING IN THE CORPOREAL ENTITY. CONCEPT OF ACT.—SUBSTANTIAL AND ACCIDENTAL ACTS.

840. The study of matter, then, conducted under the guidance of experience, that is, by perception, whereby our understanding is placed in communication with it, and from which it derives the concept of it, shows us what is the *intrinsic order of being* in the corporeal entity.

We see that in such entity, denominated *body* and *matter*, there is an act anterior to the others and on which the others are based, an act without which it is impossible for us to think the others, but which we can very well think without the others, although, at the same time, we must assume, that when it is realized, it is accompanied by others, and these, in part, variable. Now this act which is first conceived is the substance; and the others which have this first act as their subject, we think afterwards, and call *substantial* when they are altogether necessary to the subsistence of this first act, although they may not be so to the concept of it (and these acts, considered in their unity, are called the *substantial form*). On the other hand, we call them *accidental* in so far as they are not necessary, that is, in so far as they may vary without destroying either the substance or the substantial acts; and these are the accidental forms, or accidents. To these are added certain extrinsic determinations arising from the *reality*, and not from the *idea* of the being.

841. Such then is the intrinsic order of material being, as distinguished in it by the understanding:

1.° A first act, substance, without which the others are

not understood and to which the designation *being* is applied.

2.° Substantial acts or forms, which have substance as their conditioning subject, but are necessary to the complete concept of the being.

3.° Accidental acts or forms, which have for their subject the substantial forms.

4.° Determinations not comprised in the full-specific idea of the being, but due to its *reality*.

CHAPTER IX.

SUBSTANCE-PRINCIPLE, SUBSTANCE-TERM, AND MIXED SUBSTANCES.

842. The first act, therefore, that is perceived in the object of perception is substance.

But this first act has sometimes the nature of a *principle*, sometimes that of a *term*.

Moreover, sometimes this *first act* (by *first* we always understand first with respect to the intrinsic order of the entity perceived or conceived) presents itself to us as essentially and solely principle; sometimes as essentially and solely the term of the same act whose principle remains hidden from us; and sometimes as containing the two relations, of term of one act and principle of another.

843. Hence three kinds of substances: (1) the first act (in the object conceived) which has and never loses the nature of principle; (2) the first act (in the object conceived) which has and never loses the nature of term; (3) the first act (in the object conceived) which stands in the relation of term to a preceding act (which, therefore, is a substance different from it) and in the relation of principle to its own act and to subsequent acts, of which alone it is the first act and act-principle.

844. To be an act which is essentially and solely principle belongs only to God: to be a first act which is essentially and solely term belongs to material substance; to be a first act as term with respect to a preceding activity, and as principle with respect to the act of its own subsistence and to second acts, belongs to spiritual creatures, and hence to the human soul.

845. It is well to observe that this is a classification of substances, or of first acts (meaning by first that which in the concept of a body, we, following the logical order, conceive before the rest), and not a classification of acts in general. If attention is not paid to this, the objection will be raised that even bodies are the principles of their own acts. Now this is not true, because in all the apparent operations of bodies, it is always the *term* that is considered; whence we have already proved the inertia of matter. The changes of bodies, therefore, are not operations of the corporeal substance, but modifications of it; hence their activity is perceived always in its term and never in its principle.

CHAPTER X.

IN WHAT SENSE THE SOUL MAY BE REGARDED AS A MIXED SUBSTANCE MADE UP OF PRINCIPLE AND TERM.

846. We have said that the soul may be regarded as the term of a preceding action (performed by the Creator): this requires explanation.

It is one thing to say that the soul is the term of a preceding action, another to say that this action, resting and operating in its term, is the soul. To confound these two things is a most manifest error. This we see from the absurdity which would be the consequence, since, in that case, the creative action would be the soul; but it is proved also directly, as the philosopher ought to prove, from the perception of the soul compared with the perception which we have of matter.

Bodies are perceived as immediate effects of a foreign action in our soul. The concept of them, therefore, results from their action in another being which is perceived, whence it is that they are perceived in so far as their activity is in its term, in the passivities of the soul. But this activity of bodies in the soul, as in their term, is not the principle which makes them subsist as beings in themselves; for this principle we do not perceive. On the other hand, the soul is not perceived at all as acting in another being different from it, but as existent in itself. It is, therefore, perceived to all its extent, including the principle of its activity. The action, therefore, whose term it is, is something foreign to that principle which is called soul, and anterior to it. That which is the principle of an act cannot be the term of the same act, but must be the term of a preceding act.

Hence the concept of the soul is that it is a principle. It is not a term with respect to its own first (substantial) act; but it is a term with respect to another act which is different from it, and which is not perceived.

CHAPTER XI.

ARE SUBSTANCE AND SUBSTANTIAL FORM DISTINGUISHED IN THE HUMAN SOUL?

847. We have seen, then, what is the intrinsic order of the being which is called body. In this order, we have distinguished, (1) the matter, or substance, the first subject of the other qualities, (2) the substantial form, &c. But in the human soul there is no matter. Is there then no distinction between the substance and the substantial form of the soul?

As in every other question, so in this, we must begin by coming to a clear understanding with regard to the meaning of words, that is, we must define them accurately, and then proceed consistently with the definition given. What then do we mean by substantial form?

848. By "substantial form" we mean "an act perfecting another act, so that from this perfection which the new act receives, it is called by a substantive name [noun] (no. 52)." Thus, matter is not designated by the substantive term *body*, except when conceived with those determinations which are necessarily conceived in bodies, *e.g.*, a given size, a given shape, &c.

849. This being established, we must observe that "the act perfecting another act" may be conceived in two ways. First, it may be conceived as giving perfection and finish to an act in and by which itself exists, as happens in the case of matter, which is the subject in and by which its determination, that is, its size, its figure which completes and perfects it, subsists. Second, it may be conceived as giving perfection, not to an act by and in which it does itself exist, but to a different one. Thus the soul is conceived

as being the form of the extra-subjective body in so far as the living [*animatum*] body presents to external observation the phenomena of life which are regarded as a perfection (relative to us). Again, as considered subjectively, the body results (1) from an action of an agent in the soul, and (2) from the nature of the effect which this agent produces in the soul, which effect consists in the felt and its mode, that is, extension. And since these effects take place in the soul and through the nature of the soul, which is essentially sentient, it follows that the soul is that which modifies itself so as to present such feelings in itself. When, therefore, our thought takes these feelings and unites them to the agent, that is, to the sensiferous, this receives from the soul the sensible qualities with their extension, and hence, once more, it is the soul that clothes the body (the term of the agent) with that which receives the substantial designation *body*. So, even from this point of view, it is the soul that gives matter its substantial form. I say, it gives to matter its substantial form, because in this operation the substantial form of the body is rather an effect of the soul and the internal term of its operation, and, therefore, it is not the soul itself that is the substantial form of the body.

If, then, we consider the soul as perfecting and informing the body, it is the substantial form, not of itself, but of another being, that is, the body; and considered in itself, it ought to be called simply *substance*, rather than *substantial form*.*

850. It may be said that the soul must, by its essence, be the form or *entelecheia* of the body. Although we have already shown, in the first part, how this is to be understood, still in order to clear away objections, we must add something here. If by *body* we mean a being different from the soul, then it cannot be said that the soul's essence con-

* St. Thomas says there is no distinction between *form* and *nature* in those things which are simple, but only in those that are composed of matter and form. "*Forma autem vel est ipsa natura rei, sicut in simplicibus, vel est constituens ipsam rei naturam, in his scilicet quæ sunt composita ex materia et forma*" (*Sum. Theol.*, Pt. III, q. xiii, art. 1).

sists in being the form of the body, because the action or relation of two beings never constitutes either the essence or the substance of either. This relation may be a necessary consequence of the substance of one or the other of them; but that which is a consequence of substance is not substance. I say "a consequence of substance," because substances are so united, and, as it were, packed together, in the nature of the universe, that they mutually sustain and produce each other, so that they reciprocally become conditions of each other's existence, and these consequences we call *synthetic consequents of substances.*

851. But, if we consider the substance of the soul in itself and not in its synthetic consequents, then we must begin by distinguishing the merely sensitive soul of the brutes from the human soul. And as to the sensitive soul, it must certainly have, besides the principle, the (felt extended) term of its act; still, its substance does not lie in this term, but in the principle; and this term is only the condition of its existence and the reason of its individuation. If, however, we choose to call this term the form of the soul, on the ground that it perfects the act whereby it is, and individuates it, it does not follow that matter is the informing element, because that which informs has the nature of principle and of act, whereas it is essential to matter that it should be term. But matter, understood as sensiferous, is the exciting occasion of the *form*, that is, of the *fundamental feeling*, which individuates the soul and is that wherein the sentient principle developes and resides. The felt, therefore, may be called the substantial form of the soul, but the matter cannot; because the felt does not receive its perfection from the principle, but rather gives perfection to the principle, and that is the contrary of what is done by the matter, which is the most imperfect and supremely indeterminate thing* that can be thought in bodies. Hence in no respect can the notion of matter find

* It is that which is thought as in the highest degree imperfect and indeterminate. Still it is always thought as preserving the nature of *matter*, that is, as being an imperfect, an indeterminate relative to bodies.

any place in the nature of the soul. This will be seen all the more clearly, if we reflect that even the term of the soul is in the soul as in its principle, as will be more fully shown afterwards. In the soul of the brutes, then, there is the sentient and there is the felt, there are substance and substantial form, undivided in such a way, that the one cannot be thought without the other; but there is no matter.

852. On the other hand, as regards the human soul, which is at once sensitive and intellective, we have seen that its essence consists in being a rational principle, and that the sensitive principle itself receives the nature of a term to this principle, in so far as it is related to the rational principle by a natural and continual perception (nos. 264-273). Hence, with reference to the rational soul, we may make all those reflections which we made with reference to the merely sensitive soul, in order to exclude matter from it, and this in addition to the special arguments, which go to prove that the intellect is free from all matter, on account of the contradiction which exists between the essential characteristics of intellect and of matter.

853. For these reasons we must admit that, even if in the soul we distinguish the substance from the substantial form, still the substance of the soul has not the nature of matter, but of act-principle, although in this act-principle we may distinguish something that perfects and individuates it, and which has the nature of a term; although, at the same time, the soul remains, even in this its term, essentially a principle, and this perfection and term may be called substantial form.

CHAPTER XII.

ON ACT AND POWER.

ARTICLE I.

Nature of Act [ἐνέργεια].

854. By the word *act* we understand any *entity*. At the same time the word *act* expresses entity *plus* a relation—namely, the relation to potentiality, for which reason we must have recourse to the concept of potentiality in order to arrive at a clear notion of act.

855. Nevertheless, it must be observed that the notion of act involves the relation to that of potentiality sometimes in a positive, and sometimes in a negative, way.

It involves it in a *positive way*, when potentiality is taken as opposed to act, as if potentiality itself were not an act.

It involves it in a *negative way*, when it excludes the power from the act, as when we speak of an act to which no power corresponds.

ARTICLE II.

Nature of Power [δύναμις ύναμις].

856. We have said that the intrinsic order of being cannot be deduced *a priori*, but must be learned from the experience of those beings which fall within our feeling. These beings are bodies and our own soul.

For this reason we have directed our attention to these beings in order to discover their intrinsic order, in other

words, how they are constructed, and, so to speak, organized.

By means of this careful observation, we discovered that every being presents to us a unity, but that the mind in this unity discerns several elements, arranged in such an order that some are conceived before others, so that they cannot be thought as existing except in company with those that precede them in the logical order; for which reason we say that the second exist in and through the first. Of the first of all, that which can be conceived by itself prior to all the others, we say that it contains and upholds all the others and makes them exist. To this we give the name of *substance*.

But among those elements (which we likewise call entities) all are not necessary or necessary in the same degree to enable us to think a being or to call it by a substantive name. Those elements or entities which may vary without destroying the concept of a being, and thus obliging us to change the substantive name which we have given it, have been designated by us *accidental forms* or *accidents*.

Accidents, therefore, are certain actualities or entities not necessary to the concept of a being, but which, nevertheless, perfect it; or else they are the *privations* [στερήσεις] of such actualities or entities as are subject to variations.

But these accidental actualities cannot be conceived without the substance, and the substantial form of the being; whence we say that they exist in and through the substance.

857. Hence it happens, that we may conceive the being as furnished with these actualities or as devoid of them. When we conceive it as devoid of them, we see at the same time that it might have them and yet remain the same being that it is, and this is the same thing as considering the being as a *power*. We say also that the actualities in question exist in the being *in potentia*, and not in act, meaning thereby that it is susceptible of them, although it does not actually possess them.

Power, therefore, is that relation which the mind con-

ceives between a being and its accidental actualities, or the variations and privations of them.

858. From this concept there arise several consequences.

In the first place we see that there can be no power, which is merely a power, without some act, since the power of a being always implies the being, and hence the act whereby it exists as substance and substantial form.

In the second place we see that, absolutely speaking, the act precedes the power, since substance is a first act, and the substantial form is its perfection, necessary in order to constitute it, and the power, as we have said, is only the relation which the mind conceives as existing between that first act and the accidental acts and their variations and privations.

859. In the third place, it is clear that every power is united to an act and that no power forms a being different from the act to which it adheres. On the contrary, acts may depend upon other preceding acts and receive their existence from them, in such a way that these preceding acts constitute different beings. Hence we see why St. Thomas, with much clearness of insight, teaches that "Acts may all be reduced to a first act as their first cause, whereas powers cannot be reduced to each other, so as finally to lead to a first power, which, indeed, does not exist." *

* *Sum. Theol.*, Pt. I, q. lxxv, art. v ad 1m, in commenting upon which, Cardinal Gäetano, with his usual astonishing perspicacity, explains the doctrine of the Angelic Doctor in this way: "*Nota pulchram doctrinam, quod in ordine actuum, qui est ordo causæ efficientis, fit reductio ad unum numero, a quo omnes alii actus sunt. In ordine vero potentiæ, qui est ordo causæ materialis* (that is, the material cause belongs to the order of power; but the order of power does not always belong to *material cause* properly so called), *non fit reductio totius universi ad unam numero potentiam, sed ad unam potentiam analogiâ, id est, in multas potentias ordinatas ad diversos actus, et convenientes inter se proportione; quia quælibet se habet ad actum suum ut alia ad suum. Ordo autem inter eas est juxta ordinem actuum, quorum sunt capacitates. Et sic reductio in genere causæ materialis tripliciter fieri potest. Primo, omnium ejusdem generis, et sic ad unam numero potentiam* (it seems not to be always *ad unam numero*, but sometimes *ad unam essentiâ*, as happens in the case of matter, one part of which is of the same essence as another, and yet differs from it through its different *reality*, for which reason acts belong to different parts of matter). *Secundo, totius universi, et sic ad unam analogiâ. Tertio, ipsarum potentiarum, et sic una non resolvitur in aliam, universaliter loquendo, quia nec potentia intellectus in potentiam materiæ, nec e converso, resolvi potest; quamvis una inter eas est infima ordine imperfectionis, puta materia prima. Et ratio subtilissima S. Thomæ est, quia*

ARTICLE III.

Receptive, Passive and Active Powers.

860. Now if we continue to consider the internal construction of the beings which fall within our experience, we shall readily recognise that the powers of which we have been speaking have three modes, which give rise to the division of powers into three classes.

Sometimes, indeed, we see that one being can receive another into itself without confounding itself with it, as, for example, the objects known are in the mind that knows them, and this power gives rise to a class which we shall call receptive powers.*

Sometimes a being, by receiving the action of another, is modified in something, and this passivity gives rise to another class of powers, that of the *passive powers*.†

Finally, the same being may posit acts that are acci-

potentia etiam prima EST INTRINSECA REI CUJUS EST, *et ideo oportet esse diversorum diversam.* EFFICIENS VERO PRIMUM, NIHIL EST RERUM, *et ideo stat unum omnium esse.* CAUSA ENIM MATERIALIS (and, more generally, *potentialis*) EST INTRINSECA (or, as we say, annexed to the act), EFFECTIVA VERO EXTRINSECA."

* To *receptive* powers correspond *receivable forms.*

Being is a *receivable* form, a form essentially objective; but it exists in three modes, the ideal, the real, and the moral. If it is received in its ideal mode, it informs the soul, rendering it intelligent, and becomes its substantial form; whereas the sentient soul is a *receptive power*, and even the very acute Gäetano, although maintaining that phantasms receive nothing positive from the light of the acting intellect, nevertheless says, that "*intellectus agens convertitur super ea, non formaliter, sed* OBJECTIVE, *sicut colores illuminantur,*" and explains specific abstraction thus: "*Abstractio nihil aliud in productione speciei est, quam uti ipsis phantasmatibus quoad* NATURAM REPRÆSENTATAM, *et non quoad individualia*" (On St. Thomas, *Sum. Theol.*, Pt. I, q. lxxxv, art. i). But what is this *nature* represented by phantasms? Not the phantasms. Where then are we to look for it? That nature is the being seen by the mind as object, and clothed with phantasms through the primitive synthesis, of which we have given the theory in the *New Essay*. If being is received in its real mode, the reals are placed *in esse;* whence St. Thomas says that being "*non comparatur ad alia sicut recipiens ad receptum, sed magis sicut receptum ad recipiens*" (*Sum. Theol.*, Pt. I, q. iv, art. i ad 3). Finally, if being is received as moral, there springs from it moral virtue, holiness, the supernatural order.

† Philosophers have not always distinguished *receptivity* from *passivity*, as we see in St. Thomas; for which reason they considered the fact of understanding to be a passivity, whereas, in truth, it is a *receptivity*. "*Omne recipere dicitur pati quoddam et moveri, sicut dicit Philosophus in libro de anima* (Bk. III, *De Anima*, text 7): *Intelligere, quoddam pati est*" (In I. Sentent., D. VIII, q. iii, art. ii).

dental to it, and thus is attributed to it that relation which we call *active powers.*

861. Be it observed, that whatever has been said of potential acts may be said, in a contrary sense, of their *privations*, whence the possibility of being deprived of such actualities, &c., takes the form of *negative powers.*

ARTICLE IV.

On Principle-beings and Term-beings considered as Powers.

862. Wherever there is a substance (united to the idea) there is a being, because substance is the first act that we conceive—the act which makes the others exist in the manner we have explained.

Now, substances and, consequently beings, were distinguished by us into two classes, called, respectively, *principle-beings* and *term-beings* (nos. 842-845).

Term-beings are those which are not conceived as sentient: such is matter.

Principle-beings are those which are conceived as sentient; such is the soul, and such are all intelligences.

Both, principle-beings and term-beings, are substances because there is conceived in them a first act, through which all the other acts (active or passive) discernible in them by thought, exist.

Of these (active or passive) acts distinct from the substance some are necessary (substantial forms), others are accidental (accidental forms).

863. Inasmuch, therefore, as there are accidental acts both in the principle-beings and in the term-beings, we distinguish in both the power [δύναμις] from the act [ἐνέργεια].

Moreover, there may occur, both in beings which belong to the class of principle-beings and in those that belong to the class of term-beings, receptive powers, active, and passive, and hence these beings may be subject to a development, that is, to modifications and actualizations

which perfect them, or, on the other hand, deteriorate them (privations, negative powers).

864. But it must be observed that principle-being preserves its nature, as a principle, throughout the whole of its development, and similarly term-being its nature as a term, because to be principle or term belongs to their essence, which cannot vary without these entities ceasing to be what they are and becoming something else.

CHAPTER XIII.

IN THE HUMAN SOUL THERE ARE BOTH ACT AND POWER.

865. From these facts it seems plain that even in the human soul there is power, as well as act. Indeed, since it is susceptible of many accidental acts, it must likewise have many powers relating to them.

Since, as we said in the beginning, it is our intention to bring out and carefully describe these powers, we must, first of all, consider in what way acts as well as powers can be contained in the soul.

CHAPTER XIV.

HOW ACCIDENTAL ACTS ARE CONTAINED IN THE ESSENCE OF THE HUMAN SOUL.

866. Like all questions relating to the inner construction of being, the question: "How are accidental acts potentially contained in being?" is a very grave and difficult one. We must, therefore, begin far back, with the establishment of principles and proceed clearly and cautiously.

ARTICLE I.

Preliminary Observations.

867. In the first place, it must be remembered that when we are treating of a being with a view to recognising its nature and inner construction, the being we mean is always that which exists before our minds, and no other; because if we had not conceived it, we could not reflect upon it or speak of it. The existence of a being not conceived by us is different from that of a being conceived, inasmuch as the latter contains, in addition, our conception, the work of our spirits (nos. 57-70).

In the second place, it must be remembered that the way in which we know being differs from that in which we know its mode or intrinsic order. Indeed, as we have said, we know being by a natural intuition; whereas we gather its intrinsic order *a posteriori*, from experience, by perceiving its reality.

868. In the third place, we must pay strict attention to the rule, never too often repeated, which enables us to distinguish, in a being perceived by us, what is objective

from what is subjective. The rule is this : All that relates to being and is furnished by intuition, is essentially objective, and all that relates to the intrinsic order of being and is furnished by experience, is subjective.

This principle is liable to be misunderstood. We should be misunderstanding it if we were to conclude that all that is subjective in our knowledge was false ; because in that case there would no longer be any truth with regard to the thinking subject. On the contrary, all that we know respecting this subject and its belongings is true, so long as we do not pretend that these are the object. And so, what we know as subjective is true if we affirm it purely as such, just as it would be false if we affirmed to ourselves that we knew it as objective.

Nevertheless, the true has always its origin in the object as its formal cause, even as all cognition springs from the object, so much so, that even the subject itself and all that is subjective would not be known, either as subject or as subjective, but for the light of the object. For example, when I affirm " I, a subject, exist," I affirm the existence of the subject I. Now existence is objective, although the thing to which it refers is the subject, and this is true with respect no less to possible, than to real existence. If, on the contrary, I did not join existence, either possible or real, to the subject, this subject would remain altogether unknown, and, hence, for me, an intelligent being, it would not exist at all.

869. Hence follows this consequence, that not only for us, human beings, but likewise for all other intelligences, reality exists only in so far as it is known, the truth being, that the act itself of knowing is what unites to the subjective real the objective being which is called existence, and hence also what adds to it truth, since truth is nothing else but what is.*

* *Philosophical System*, nos. 56-70.

ARTICLE II.

On the Coherence of the Substances composing the Universe.—Their Classification from this Point of View.

870. Having premised so much, we come now to our question: "In what way are accidental acts virtually contained in the essence of the soul?"

It is clear that this is one of those questions that relate to the intrinsic order of being, and that therefore can be solved only by an appeal to facts. All that we can say further reduces itself to showing that in the facts there is no contradiction or absurdity. This is necessary, because it sometimes happens that facts, at first sight, seem full of mutually contradictory elements.

871. In the case before us this apparent contradiction is not wanting. It consists in this, that whereas, on the one hand, the soul is a single, simple being, on the other, it presents a plurality of acts and powers. To what we said on this subject in the first part of this work we must now add other considerations.

872. Light on this very difficult subject comes to us from the ontological principle already laid down (nos. 34-44): "the substances composing the universe cohere and are crowded together in such a way that the one upholds the other, and makes it be by as it were informing it, without in any case losing its proper distinction or confounding itself with the other."

Hence there arises a law of continuity among substances, a law which, however, does not destroy their specific distinctions.

There also arises from this what we have called the *synthesism* of nature. For example, we cannot conceive the nature of the sensitive soul, without admitting in it an *extended*, which is the *felt* and the sensiferous, and which gives us the concept of body. And yet the soul is a substance altogether different from the extended and from body. On the other hand, the felt extended cannot be

understood or conceived, unless we suppose it to exist in a simple from which it derives unity; and yet, again, the corporeal extended is a substance altogether different from the soul. These are, therefore, two substances, each of which upholds the other and makes it exist, and of which neither can be conceived without the other; and yet the two are in the highest degree different.

If we consider the rational soul, we find the same law. It is impossible to conceive an intelligence without a primitive object.* Now the essential object of intelligence is universal being, to which, properly speaking, the designation *substance* does not belong, because it is more than substance. Hence, between the substance of the rational soul, and the object which informs it, there is an infinite difference of nature, so that they remain two things altogether inconfusable. At the same time, the rational soul exists only in virtue of this other thing, which is not it, but which, in its own mode, dwells in it; and in the same way universal being, although it may be understood without the human soul or any contingent intelligence, still, being essentially intelligible, indeed intelligibility itself, it cannot be conceived except in so far as it is understood in virtue of its own essence—a circumstance from which we were able to infer *a priori* the existence of God, that is, of an intelligent reality, whose nature is not different from that of intelligible being itself, although it is distinguished therefrom through an intimate relation.†

873. If now we consider this ontological coherence among substances, which gives rise to the created, all that we have said will appear in a clearer light, and we shall be able to make the following classification:

1.° Sometimes two substances uphold and actuate each other reciprocally in such a way that the one assumes the position of principle, which is called substance-principle, and the other that of mere term, which is called substance-term. That these are two different kinds of substance

* *New Essay*, vol. ii, nos. 1005-1019. † *New Essay*, vol. iii, nos. 1456-1460.

appears from this, that the first idea of the one is not only different from the first idea of the other, with which it holds a synthetic relation, but is even opposed to it. A case of this we find in the two substances, soul and body.

874. 2.° Sometimes a substance is upheld and actuated by a term, which, as we have said, is not properly a substance, as happens in the case of the intellective soul, whose term is ideal being, essentially object. Now, in the conception of being, we do not find any act different from being; on the contrary, we clearly understand that the act whereby it is being can be none other than being itself. Thus, in this elevated region, we cease to find that communication of several substances, which, propping each other up, so to speak, mutually sustain each other; there is nothing but being, superior to all substances. The intellective soul, therefore, rests, as it were, upon this being, and by so doing exists.

875. From this examination which we have made of the interior of contingent substances, in order to discover the order of their constitution, we derive another classification of them, which, though it comes under the first, is, nevertheless, deserving of separate consideration.

1.° Some contingent substances are extra-subjective, that is, they have only an existence relative to other finite substances. The truth of this may be easily recognised by reflecting that we must speak of substance according to that concept of it which we derive from perception, and which is what is designated by the terms we use. Now, if from the concept of corporeal or material substance—term-substance—we exclude all sensitive principle, we exclude also the act of subjective and proper existence, and there remains in such substance only an existence relative to a sentient principle, since it is perceived only as felt. It is only our understandings that add to it the act of existence in an absolute mode; but they do so, as we have already remarked, only because otherwise they could not conceive it, and without meaning to change its nature or to add to it anything foreign. Thus

the act of subjective existence, which must certainly be in it, is no longer something belonging to the corporeal reality perceived by us, but is virtually supposed in it by thought from the exigencies of cognition—it is neither a specified, nor a specifying act; but by reflecting upon it afterwards we may infer that it belongs to some other being outside the body, in a word, to what we have called *corporeal principle.*

876. 2.° Some are subjects, because they are principles; and a principle, although it has a synthetic relation to its term, is, nevertheless, conceived before its term, and, hence, its real existence is not physically relative to things preceding it, but only to things that follow it. To this class belong sensitive souls.

These subjects, however, have not yet a *selfness; self* does not exist in them. Hence neither the term *own*, nor indeed any personal pronoun can properly be applied to them. But we speak and think of them as if they had an existence in themselves, and apply personal pronouns to them. This again we do, not in order to alter their nature, but in order to conceive them. We do not thereby mean to attribute to them any selfness, but merely that objective and subjective mode of being, without which we conceive nothing. This mode, indeed, presupposes that "being has an act of its own, that it is something in itself, and, therefore, that it has a *self*, a personality." In fact, there is no complete being but a person: person is the ontological condition of being. Hence souls that are merely sensitive are subjects, but incomplete ones, and, therefore, they have not all the reality necessary fully to constitute a real being.

877. 3.° Finally, some substances are perfect subjects, because they have a *self*, and hence we may say with perfectly good reason that they have an existence in themselves. These are the intellective substances, which are principle-beings and do not depend upon any contingent substance, whether antecedent or consequent: they depend solely upon the Eternal and Divine being. These alone

have self-hood, alone can say *I* in the manner which we have explained (nos. 71-80). When there exists an *I* there exists a true cause, whence it is a true agent, endowed with liberty. The act whereby these substances exist being independent of any created substance, they are able to stand above all such so as not to be necessitated by the action of any created thing. This is true, of course, only in so far as they are pure intelligences, and not bound to sensitive or corporeal being, as is the case with man, a being made up of corporeal sensitivity and intelligence.

ARTICLE III.

Explanation of the Origin of the Accidental Acts of Substances.

878. Having thus classified substances according to the intrinsic order of their construction, we may, finally, answer the question which we proposed to ourselves: How are accidental acts contained in this essence of the human soul? which may be subsumed under this wider one: How are accidental acts contained in the essence of substances?

The general answer to this question follows from what has been said, and may be expressed thus:

Since the different contingent substances are so united reciprocally that the one sustains the other and makes it exist, we have only to conceive a change in this ontological union in order to conceive that substances must be variously modified, and these modifications are their accidental acts.

879. The accidental acts of substances, therefore, depend upon their *ontological* connections with each other, and hence may be said to be extrinsic to them.

880. In this way the unity of substance is maintained amid the multiplicity and variety of its acts, and thus is solved one of the most difficult questions of Ontology. Such, indeed, is the nature of that act which we call contingent substance, that it unites itself to another substance,

and by this union subsists. Hence, even assuming that no change takes place in the act of a substance considered in itself, still if its ontological contact with what is different from itself be changed, it acquires a new mode, is actuated differently. Thus, although the change does not lie in substances, but in their different ontological conjunctions, the result, nevertheless, is a change in the substances themselves, inasmuch as their actuality depends upon the mode of those conjunctions.

881. Let us see, then, in what manner we may conceive such conjunctions to be varied.

1.° In the first place, we may think the conjunction as altogether destroyed. When this takes place, the synthesizing substances themselves are annihilated. Thus, if we separate the sentient from the felt, we annul the sensitive soul, because there is no longer any sensitive soul when every feeling and every possibility of feeling are altogether extinguished.

If we separate the felt from the sentient, we annihilate corporeal or material substance, because we no longer find either extension, or sensiferous force, or the external force which changes the sensiferous, or sensible qualities, which are the elements that go to constitute the concept of body.

If we separate the intellective soul from ideal being, the former no longer exists, because that which understands nothing at all is in no sense an intellective soul. But if we separate ideal being from the soul, we still see that it must by its essence be understood, and hence it is not annulled, because it is independent of the soul and of every created substance, but presupposes a real having an identical existence with it.

882. 2.° In the second place, we may conceive that a substance united to another to which it gives actuality is changed either by the substitution or the addition of another, or by the union with it of another substantial part, as happens in the case of matter, whose parts are substances numerically different, although of the same nature.

883. The first of these cases is impossible, because if the substance which gives actuality to another were entirely changed, the substance which received the actuality would no longer be, inasmuch as its nature and formal existence arise from the conjunction in question. Thus, if the soul had for its term, not the corporeal felt, but an intelligent being, it would no longer be a soul (nos. 184-199).

884. The second case, that of one substance united to another of the same species, is possible, and possible in several ways. Here we are dealing with corporeal and material substance, and therefore with different portions of the same substance.

Let us consider the different species of brute animals. Properly speaking, all non-intelligent animals belong to the same species; they are substances specifically the same, inasmuch as in all we conceive the same first act of existence, which consists in the union of the sentient principle with the harmonically excited felt. Now, animals appear in very different shapes because there is a variety in the quantity of the felt, of the excitement, and of the harmony with which the sensitive principle is excited; and these are the three elements of the substantiality of animals.

This variation, therefore, in the connection between the two substances (body and soul), does not properly change the substance, but places it more or less in act, and for this reason some animals are more perfect than others. Still, we cannot say that these varieties are transient accidents, because the felt has been substantially and permanently changed. For this reason, common-sense considers them as different species. If we should choose to call them *varieties*, then we should be obliged to distinguish two kinds of varieties, calling the first *constitutive varieties*, and the second, which are accidents with respect to the first, *consecutive* or transient *varieties*.

If a new sense should be added to an animal (and I believe this is conceivably possible in the case of the imperfect animals, although I do not think it can be affirmed

to be possible in that of the perfect ones, if by senses we mean corporeal senses, there would result in this animal a constitutive and stable change, on account of its union with the new felt, which would differ from the preceding felts, not only in the quantity, but also in the quality, of the conjunction.

885. From the quantity and the quality which may vary in substances ontologically united to others, there arises the concept of what are called the *integral parts* of a whole. A man who has had a leg amputated has undergone a constitutive and permanent change, in so far as a portion of that substance which ought to adhere to him, according to his ideal type, no longer does so; and yet the essence of the man remains intact, because nothing of what falls within the first idea of man is changed, the only change being in the ontological conjunction whereby the man subsists.

886. 3.° Finally, the ontological conjunction sometimes does not change in such a way that one of the two substances is altered permanently, but only so far that the one is united more or less or differently to its companion, and that in a transient and variable way. Hence arise those accidental changes, which are the common accidents of created substances.

ARTICLE IV.

Application to the Acts of the Soul.

887. Applying all this to the human soul, we find that there are two elements which inform it, the corporeal felt (corporeal substance), in so far as the soul is sensitive, and ideal being, in so far as it is intellective.

That the human soul should be sensitive in a perfect manner, resulting from the human organism, seems, as we have seen, a predisposition necessary for intelligence (nos. 672-675). But although the human organism, which is the felt, must have a given conformation, in order that the soul may be sensitive in the human way, that is, in such a way

that intelligence may be added to it, still the conformation is not so fully determined that it cannot at all vary. Hence diversities in sex, in age, in temperament, in states of health, in perfection of organism, &c., &c. These diversities

1.° Are, in part, stable, and therefore belong to varieties or *constitutive accidents* accordant with nature, *e.g.* sex.

2.° They are partly changes of *integral parts*, such as we find in monsters which lack some part, or have, joined to them, some part that does not properly belong to them. This is another class of varieties, consisting of *constitutive accidents contrary to nature.*

3.° They are partly mere diversities of *quality*, such as greater or less robustness, dark or fair complexion, &c.

888. Considering, then, that the animal constitution is a predisposition necessary to rationality, inasmuch as man receives from his animality the *matter of cognition*, and the *indications* according to which he reasons, and hence also the aptitude for reasoning more or less perfectly—an aptitude depending upon the facility to receive, recall, preserve, and mix at will the sensible *indications* of things—we must conclude, that in the reasoning as well as in the affective faculty there are as many varieties as the diversities just specified in the human animality.

889. If, on the other hand, the being intuited by man should acquire a reality, his intellective state would change substantially, and this is the transition which he makes from the natural state to the supernatural ; but this is a subject belonging to theology. This change, however, which has reference to man's supersubstantial form, carries with it a corresponding change in his reasoning faculty, and even in his body, by reason of the activity which his intellective part exercises on his animal part (See nos. 288-389).

890. But these varieties, accordant with, contrary to, or above nature, integral or qualificative, varieties which in some sense are called accidental, that is, in the sense that they are not included in the idea of man, all refer to

state, and are not *transient acts*. Of these we must now speak.

891. Corporeal matter, having the nature of a term, is necessarily inert (nos. 816-822); hence, with respect to it, we cannot say that there is any transition from power [δύναμις] to act [ἐνέργεια]. All its changes proceed from without. It is merely passive: hence it has only passive acts, which, properly speaking, are not acts but passions [πάθη]. The passions of corporeal being, moreover, always relate to quantity, and hence they cause changes in the numbers, forms, localities, &c., of bodies.

It seems that the sensitive being has accidental acts, and so they may be called. But if we carefully consider how it is constituted, we see that these acts do not find their sufficient reason in it, but in the substance which sustains and actuates it, which is the corporeal substance. The fact, therefore, of its being sustained and actuated differently is what changes the accidental mode of its activity. It is, indeed, an activity, since, as we saw, it is a principle-being. But this activity is sustained, informed, and actuated by its term, that is, by the *felt*. Hence when this changes, that activity becomes greater or less, and displays itself in various forms, but without changing its law or the basis of the same. For example, if we keep our eyes fixed upon a surface across which different figures variously coloured and arranged pass, the reason of their successive changes lies altogether outside of the eye: the activity of the eye which strains to look remains the same, although the objects presented to it change. The eye always sees with the same virtue, with the same activity, although the visive act seems to change. The truth is that this act does not change; what does change is its term. Nevertheless, this term of the act of seeing is necessary to vision, and is what, by actuating vision, makes the eye see. Now, according as the surface seen changes, the act of the eye also changes, while its basis, that is, the seeing principle, and the law of vision remain immutable. Now, it is beyond all question, that if on the surface beheld by the

eye the figures diminish in number and size, the eye sees fewer things than before, and if these representations cease altogether, the eye sees nothing but a uniform surface. But if this surface visible to the eye should go on narrowing, the act of vision also would diminish, and if the visible surface disappeared altogether, the act of vision would cease along with it, inasmuch as there would no longer remain any vision. This happens because the visual act does not depend alone on itself, but is conditioned by its term, whence the visual act neither increases nor diminishes nor ceases through any deficiency of its own, but through the deficiencies of the term which actuates and informs it. Thus every sensitive principle resulting from this duplicity of substances ceases when the substance which acts as form and term to it ceases, and changes when it changes, not through any deficiency of its own, or through a spontaneous increase or diminution of activity. Let it not be offered as an objection to this, that it would follow as a consequence that the sentient would be merely passive, and that, therefore, there would be no possible explanation of all those animal phenomena in which the action of the sensitive principle upon the body manifests itself, for example, the circulation of the blood. The fact is, that all these movements have their reason in the very primitive activity of the sentient principle itself, an activity which is always acting on its term according to the same law and the same basis. Hence, if any irritation—let us say a violent pain—causes an increase in the circulation, which, in our view, means an increase of action in the sentient principle, this does not occur because the sensitive principle has modified its own activity, but because it has found another term which has actuated and informed it in a higher degree, so that it has been able to exhibit itself in this manner. Thus, if I first place an opaque object before the rays of the sun, and then replace it by a transparent one, the rays of the sun in both cases strike the body placed before them in the same manner, with the same rapidity and vehemence; but in the

first case they are stopped and reflected, whereas in the second they pass through, not because they have modified their activity, but because their activity in its mode of exhibition is conditioned by those bodies of different natures which they meet in their course.

892. The accidental acts of man are *sensitive* and *intellective*. In so far as they are sensitive, they exhibit themselves in the mode referred to. In so far as they are intellective, they can display themselves only by having recourse to their proper term—the idea, which actuates the intellectual activity, the object, universal being. Universal being is perfectly simple, in itself immutable, and, therefore, the intellect, as such, is also immutable in the order of nature, being susceptible only of a supernatural change, when ideal being realizes itself before it, an event which takes place only in the order of grace and glory, which lies above human philosophy. It is true that we may be in doubt as to whether ideal being itself shines with equal light for all human intellects; but in any case, I am inclined to refer the primitive differences of intellectual power to the rational order rather than to the intellective order alone.

893. The rational order begins with the fundamental perception (nos. 254-271), and its development at the first instant when a man perceives external realities in ideality. The *acts of the perceptions*, therefore, depend on the realities that fall within his feeling, and must, for that reason, likewise be explained by reference to variety in the term of perception and to the primitive rational activity by which the soul is always rendered tense, and so, to speak pointed toward the perceptible term presented to it in feeling; nor need we assume any spontaneous change originating in this primitive activity itself. *Acts of reflection* are afterwards determined by needs, and these acts must be explained in the same way, because needs make themselves felt first in animality. Only when man has attained the use of his own liberty* does there appear in him a kind of acts altogether new—acts which can be explained only

* *Anthropology*, nos. 543-559.

on the assumption that the agent moves itself in such a way that its transition from power to act depends not upon its term but upon its active principle.

894. And herein lies the chief difficulty in explaining how it is that these accidental acts do not interfere with the unity of the active principle. This difficulty is so great that any one, even after he succeeds in understanding the solution of this kind of philosophical mystery, has the greatest difficulty in explaining his thought in words, so as to make himself clearly understood. Notwithstanding this we shall make the attempt.

In the first place, let it be borne in mind that liberty (we mean bilateral liberty) is the faculty of choosing between two volitions.*

In the second place, let it be borne in mind that there is no place for true bilateral liberty except in the moral order, when the choice is presented between a volition agreeing with the moral law, and another at variance with it; the fact being that outside of this case there is no reason that could induce a man to prefer subjective evil to good or the less subjective good to the greater.† But when we come to compare the subjective order with the objective-moral order, then we understand how a man might prefer the smallest objective-moral good to the greatest subjective good, or how he might do the contrary, by preferring subjective good to any objective-moral good, however great. The reason of this is that the subjective order and the objective-moral order do not belong to the same category, and that their degrees cannot be compared or measured with each other. Hence they have not in common either species, or genus, and, therefore, not even true resemblance, or true analogy. Consequently, if we look at moral good purely as such (it is to be found in the necessity of moral obligation), it has not in itself the power of detaching a man from the subjective good with which it may have come into collision, if the man himself do not add of his own force to it and determine him-

* *Anthropology*, nos. 606-611. † *Ibid.*, nos. 560-566.

self in its favour. And it is in this self-determination that liberty consists. The moral or ideal-moral order (the law), therefore, is the term of the moral activity, just as subjective good is the term of the real activity. Since these two terms belong to distinct categories, the two activities which they uphold and actuate do the same, and each of them varies its accidental acts according to the changes in its own term. But since the soul has these two terms, it has also two activities categorically distinct, whose terms being incommensurable, cannot, when they come into collision, determine it to display the one activity rather than the other; for which reason it must itself enter the field and decide for itself, and herein, we repeat, lies liberty. Now the whole difficulty in connection with this matter consists in explaining how the soul, being one, can have these two activities so entirely distinct, and how it can freely adhere to the one rather than the other, without being determined by either.

Now, in the notion that the soul, though in itself one, should have two terms, there is nothing absurd, since the duality lies in the terms and not in the principle (nos. 161-173). That two activities are aroused in it, is due to the duality of the term, because, as we have said, the adhering term actuates the principle to which it adheres. Since, therefore, the terms are categorically distinct they must arouse in the soul two activities categorically distinct. But the difficulty lies primarily in explaining how these two activities, being categorically distinct, can have a single principle, namely, the soul.

895. In order to overcome this difficulty, we must observe that the categories are consequents of the forms of being. We have said that the same identical being is in three forms or modes, that is, the *real* mode, the *ideal* mode, and the *moral* mode.

In being, therefore, or in the unity of being, the three categories coincide, though much more distinct from each other than genus is from genus, and mutually exclusive. If we can find the nexus or that sole seat of the categories in which there is a most simple unity combined with a most

distinct trinity, we shall be able to understand how being, which is communicated to the soul under the real and moral categories, can strictly preserve unity in the soul, provided only we conceive it as existing in the soul prior to the real activity, and to the moral activity, and at the same time conceive an activity which regards being in its unity. And we can readily see that these several activities indeed exist in the soul, when we look at intelligence which has being for its term. The truth is, that although this faculty has for its term being under the ideal form, it nevertheless has, even anteriorly, as its object, *pure being*, since it would be impossible to communicate with the ideal form of being without communicating with being itself, which manifests itself under this form. Hence even in the soul there are in effect, unity and trinity, a most distinct vestige of the Divine Trinity. In so far, therefore, as the soul communicates with being, it has a single activity, in which are united all the others, even though categorically distinct, as are the real activity and the moral activity of which we have been speaking. It does not, therefore, involve any absurdity to say, that, just as being, although one and perfectly simple, has, nevertheless, three forms, so likewise the soul, to which being communicates itself, should, though perfectly simple, have in its unity three activities categorically distinct.

896. But it still remains to be explained how that single activity which corresponds to being, and in which are united the two activities, the real and the moral, which correspond to the two categories of being, can determine itself to prefer the objects of the one to the objects of the other, when they come into collision in such a way that it cannot embrace both at the same time.

To get at the root of this matter (and this is the purpose of all our reasoning) we must consider that in being, considered as complete, absolute, entire, the forms can never come into collision with each other.* And, as the real form has the nature of a principle, the ideal form, that of a means, and

* *Theodicy*, nos. 384-397.

the moral form, that of an end, so the order of this being is such that the moral form is related to the others as their complement and perfection. Hence, even when being is participated in with limitation, the moral form has this peculiarity that it can never lose the character of end and of perfection which forms its concept. If, therefore, it were rejected in favour of the others, made to serve as a means, or altogether neglected, there would be disorder, that is, destruction of the intrinsic and natural order of being; there would be an internal strife in being itself, tending to destroy it, since being cannot exist except in its own proper order. Hence the human soul, or any intelligence having for its term being with its categories, must necessarily in its first act preserve that order which being furnishes it with, and which sustains and actuates it by communicating itself. Hence it follows, that if the soul (not yet defiled) should act in accordance with this its first activity, which is well ordered, it would preserve in its operations an order altogether analogous and corresponding to the order of being itself, and by this order it would be determined to act with moral perfection. We must, therefore, suppose that in the soul there is a spontaneity inclining it to moral action, that is, to adhere always to the moral good, without ever sacrificing it to the real good. Hereby our question is narrowed, since it leaves us only the task of explaining how the soul can ever abandon the moral order, to go in pursuit of good that is merely real or subjective, in other words, how sin is possible. When we have explained this, we shall also have explained liberty and its accidental acts.

We must, therefore, observe that the soul, in so far as it possesses real activity, is in the highest degree mobile, in other words, that any good or evil, however small, is sufficient to determine it to act.* And as long as this action does not run counter to the moral order, it acts according to the particular spontaneity of its real activity. When, on the contrary, the action does run counter to the moral order, then there come into collision before it two activities,

* *Anthropology*, nos. 623-627.

which determine it in opposite directions, and of which either, if it were alone, would suffice to make it act. Since, however, they are in conflict, which shall conquer? The moral activity is superior in respect to the excellence and amplitude of the term which produces it, because that term is being in its completeness and in its ultimate perfection, which embraces everything. Hence, if this moral order should act in the soul with all the efficacy of which it is capable, it would necessarily produce in it an ever-prevalent spontaneity. But this order, notwithstanding that it is the term of the soul, does not act upon it with such complete efficacy. The result is that, although the soul understands the dignity of this order and the absolute obligation of preferring it, it does not draw from it the strength necessary to repress the spontaneity of the real activity. It may, indeed, succeed in doing this, but only on one condition, namely, that it voluntarily unite itself more closely to the moral term which informs and actuates it, and so cause the salutary force exercised upon it by this term to increase and add to it moral vigour. As we have said, the soul sees the obligation of acting thus; and although this seeing does not, certainly, determine it, it informs it that, if it will, it may determine itself in that direction. I say, "if it will," that is, if it increase the vigour of its moral spontaneity by binding itself more closely to the moral term, and so acquiring an augmentation of strength.* Thus the *seeing of moral necessity*, which constitutes the special term of its intelligence, is the spring of the soul's liberty, because, by means thereof, it learns that it can and ought to will, although it is not determined thereto.

The intelligence, therefore, is the spring of liberty, because the intelligence represents to the soul the moral order and its supreme necessity—represents to it that

* We must not be here understood to mean that the soul can do everything in the moral order. Its forces are limited. It may be determined to sin as well as to righteousness, even before acquiring the use of its liberty, as is shown by the dogma of original sin. We, therefore, speak here theoretically (as is often done by the Angelic Doctor, so ill-understood by certain persons), considering the soul in itself, apart from its special circumstances: we speak on the supposition that it lacks none of the conditions necessary for its action.

from this order it may draw that force which it does not yet possess, but the gaining of which depends on itself. Exactly, therefore, as the other activities of the soul are determined to their acts by their objects or terms, so liberty is determined by its object; this object, however, which is that of intelligence embracing the two opposite sides, the real and the moral, does not determine it to either of them; but the soul, finding in this object the possibility of giving prevalence to the moral, of which it sees the supreme excellence, as well as the necessity and finally the power of unlimited actualisation, is capable of either determining itself toward the better side or yielding to the worse.

To conclude: every real substance that, by ontological conjunction, sustains and actuates another substance, imparts to it a determinate activity; but ideal being, when ontologically conjoined with another substance (the soul), does not impart to it a determinate activity, but only the power to determine itself.

CHAPTER XV.

HOW THE POWERS OF THE SOUL ARE CONTAINED IN IT.

897. From the acts of the soul we must pass to its powers. But first let us sum up.

The second acts of the soul are of two kinds, the necessary and the free (bilaterally). The necessary acts find their explanation in the changes arising in the substances which ontologically adhere to the soul, and, properly, from their reality, which, if nothing opposes it, has the power to determine the actuality of the soul. Of the free acts we find the explanation when we consider the nature of ideal being which ontologically adheres to the soul, actuating it, not indeed to a determinate operation, but in such a way that it acquires the power to determine itself, as we have shown. The reason of this is, that ideal being itself is not determined to represent any one class of realities, but all, and to make known the measure of their worth; whence the soul, knowing by means of it the different realities and their worth, without being determined by them—and this for the reason that, although they are known by it, they are not all ontologically connected with it—has the power to choose between them, and to unite itself ontologically, even to the complete and moral good with which it is not connected, thus receiving from it that determinate activity whereby it is able to overcome the impulse of every other reality tending to determine it in another way.

898. The *realities*, therefore, which, by being united ontologically to the soul, excite its activities, are variable, and hence the origin of those powers of the soul that act with necessity.

899. The *ideality*, on the other hand, which is ontologically conjoined with the soul—by reason of its universality, whereby it makes known all realities, even those which do not actually operate on the soul, even the Supreme Being, and, besides this, the order of being, the necessity of this order, and moral good—originates the power of liberty.

900. With respect to this last power, the soul itself changes the terms to which it becomes ontologically united, and on which it leans. But with regard to the other powers, we must still explain how the realities which sustain and actuate the soul change.

901. Experience tells us that bodies are in continual motion. These movements change the felt term of the soul, which is one of the substances or realities which sustain and actuate it. But we have still to account for this motion of bodies.

902. We have seen that no body contains in its concept the reason of its own motion. We have shown that matter is inert (nos. 816-822). Influenced by these considerations, some of the greatest philosophers have thought it impossible to explain motion without having recourse to the direct action of God. It has seemed to others, and to almost all moderns, that this was making God intervene without necessity in the order of nature, and hence they have adopted the expedient of denying the inertia of matter, and have written volumes to show that it has an energy of its own. This they certainly would not have done if they had properly seized the concept of matter, tracing it back to its original formation in our souls. Indeed, the concepts of things can never be obtained in their purity and genuineness unless they are caught at the moment when they arise in our spirits, and this for the reason that they are afterwards altered by the action of the spirit itself, and, what is worse, compounded and mixed with other concepts. Hence arises the error of attributing to one entity the properties of another, just because two concepts are combined into one, and then the result con-

ceived to be simple, when in truth it is compound. We, while reserving to God all His creative and preservative action, do not believe that He intervenes in order to impart motion to bodies any more than He does in any other fact of nature. Hence we maintain that according to sound philosophy there must be a secondary cause of motion, and that we must not introduce into it direct Divine action. What then is this secondary cause? We have already pointed to it in the first part of this work, setting out from an unquestioned datum of experience. This datum, furnished by experience, is, that the sensitive principle is properly a motive activity; for which reason we declared ourselves in favour of the opinion that all corporeal atoms are united to a sentient principle (nos. 500-553). Now, although this sentient principle never changes the law or the basis of its own activity, as we have explained in the preceding chapter, still, supposing as given at the beginning a certain distribution of matter (and the first and most wise distribution must be attributed solely to the Creator, there being no other ground of explanation),* there is nothing illogical in thinking that, in virtue of the sensitive activity, this distribution continually changes in a certain order, passing into another and then another without ever stopping, and that on this supposition all the movements in the universe may be explained, although not the laws of the communication of motion, which must be attributed to the *corporeal principle*. The fact we find, on a small scale, in the animal body. As I have already said, and as I shall prove more at length further on, all animal movements without exception, which move in a circle whose whole outline I designate the *Zoëtic course*, are most readily explained on the supposition that their sole cause is the sensitive activity, which never changes its law or its basis, so that the animal goes through all the stages of its life with the same sensitive activity that was given it at the beginning, and modifies its own organization until it is dissolved by death. It is true that we

* *Theodicy*, nos. 238-242.

discover through experience another indubitable cause of motion, viz., intelligence; and, therefore, there is no reason why, in order to produce the movements of the world, there should not intervene intelligences unknown to us. This thought, indeed, is very much more philosophical than either that absurd one which denies the inertia of matter, or that other intemperate one which attributes those movements to God, as their proximate cause.

At all events, since such changes take place in the terms of the soul, we must attribute to it potentiality, which, in the last analysis, is only activity susceptible of being variously modified by means of its term.

CHAPTER XVI.

ON THE DISTINCTION BETWEEN THE POTENTIALITY AND THE ESSENCE OF THE SOUL.

903. But are the powers which we find in the soul distinct from the essence of the soul?

In the first place, we must distinguish between the *general potentiality* of the soul and its *special powers*. At present we must speak of the potentiality of the soul in general, and try to discover how it is distinguished from the essence of the soul. Of the distinction between its powers we shall speak in the following books.

The potentiality of the soul, then, is conceived by philosophers in two ways:

1.° As the principle of the soul separate from its term. This notion represents to thought a formless principle, which is no longer soul nor anything belonging to soul, because it no longer has any act characteristic of the soul, not even that of principle, which does not exist if it is detached from its term. If, on the other hand, this potentiality is considered in relation to its term and not separated from it, then it ceases to be a potentiality, because it is a first act, it is the soul.*

904. 2.° As the principle of the soul informed by its term, but by a *variable* term, as we have called it. Now this variability, which is the cause of the potentialities, relates to the term of the soul, and not to its principle, which is the soul itself, and which is variously actuated

* St. Thomas says that "the potentiality of matter is nothing but its essence," setting out with the concept of formless matter, whose act is the substantial form (*Sum. Theol.*, Pt. I, q. lxxvii, art. i ad 2m). But we have seen that matter altogether formless is not a being, but, properly speaking, naught conceived by the mind as the *term from which* the existence of contingent things, which are drawn from nothing, begins—a hypothetical abstraction.

by its term. Hence this, which is the true potentiality, remains distinct from the essence of the soul, which might be conceived even if the term never varied. For example, we cannot conceive a sensitive soul without a *felt term;* but this term may have a thousand different modes and vary from one mode to another. Hence what is necessary in order to enable us to conceive this soul (to think its essence) is a felt extended: but it is not necessary that the quality of this should be determined. In the concept of the soul, therefore, in which its essence and nothing else is thought, the felt remains undetermined.

905. In so far, therefore, as the soul has in general a felt extended, it is conceived in its *essence;* in so far as it may have one felt term or another, it is conceived in its *potentiality.* The *potentiality* of the soul, therefore, is different from its *essence.*

The same reasoning may be applied to the object which is the term of the intellective soul, except in this respect that the intellective soul has a determinate object, which is universal being, and variability does not, properly speaking, occur in it, inasmuch as it is immutable, but in the realities known in and through it.*

906. But why are the terms of the soul variable?

The reason is that its terms are limited; and in every limited there may be conceived a variation, and a more and a less.

If, on the contrary, there were a being whose term were the whole of being and, consequently, the whole order of being; this being would have no potentiality of any kind, but would be pure act. The reason of this is, that being

* Thus we explain what St. Thomas means when he proves the difference between the *essence* and the *powers* of the soul. He brings forward this objection: "Is not the sensible essential to the sensitive soul, and the rational to the rational soul? If so, the powers of sense and intellect are not different from the essence of the soul." He replies: "*Rationale et sensibile, prout sunt differentiæ, non sumuntur a potentiis sensus et rationis, sed ab ipsa anima sensitiva et rationali*" (*Sum. Theol.* Pt. I, q. lxxvii, art. i ad 7m). Which means: there are a sensible and a rational which belong to the essence of the soul, because without them the soul cannot be conceived; but there are, besides, a sensible and a rational which do not belong to the essence of the soul. The first are not subject to changes, but the second are, and it is to the second that potentiality refers.

with all its order is perfectly one and immutable. This may be proved after the manner of the mathematicians from the absurdity that would follow from supposing the contrary. In fact, let us suppose that some variation took place in the all. Every variation belongs to the order of being. Hence the term of the being was not the whole of being with its order, which is contrary to the supposition, because the order lacked the variation which took place in it.

Hence God alone, of necessity, can have no potentiality. He is pure act, because His term is the whole of being with its whole order. Hence even that which is conceived in God as power cannot, without error, be distinguished from His essence.

907. There follows from this another consequence, viz., that if we conceive a power which is the essence itself of being, even the acts which are attributed to this power must be identical with the essence of being, since that must be a single act which has for its term the whole of being in its perfect unity and simplicity.*

And yet the essence of the soul is the source of its powers, for the reason that the essence of the soul is in its very nature a *principle*, which is actuated by its term. Beyond all question it is the *principle*, or the *soul*, that, being actuated differently by its different terms, performs all those different kinds of acts to which the powers relate; hence by the greatest of Italian philosophers the soul is declared to be the principle, but the remote one of acts, whereas the powers are declared to be their proximate principle.†

* St. Thomas shows that the power of a being cannot be identified with its essence, if its acts also are not identical with it. He says: "*Cum potentia et actus dividant ens et quodlibet genus entis, oportet quod ad idem genus referatur potentia et actus: et ideo si actus non est in genere substantiæ, potentia, quæ dicitur ad illum actum non potest esse in genere substantiæ.*" Hence he infers that the powers of the soul are not its essence, because "*operatio animæ non est in genere substantiæ, sed in solo Deo operatio est ejus substantia*" (*Sum. Theol.*, Pt. I, q. lxxvii, art. 1, *in corp.*).

† *Sum. Theol.*, Pt. I, q. lxxvii, art. i, *in corp.*

CHAPTER XVII.

WHAT ARE HABITS [ἕξεις] AND HOW ARE THEY CONTAINED IN THE ESSENCE OF THE SOUL?

908. It remains for us to speak of habits and to show that the multiplicity of them does not interfere with the unity of the soul, in the same way as we have shown that the multiplicity of acts and powers does not. And the way is paved for us by what we have already said. But in order to proceed more clearly, let us begin by defining what we mean by *habit* and accurately determining its nature.

ARTICLE I.

What is a Habit?

909. Habit, generally speaking, is a certain acquired and accidental disposition of the soul, whereby it is placed in a better or worse condition and is better enabled to act in a given mode.*

ARTICLE II.

Twofold Meaning of the word Habit.

910. Hence the term *habit* has two main significations. It is either considered with relation to the essence of the soul, or with relation to its powers.

911. If habit be considered with relation to the essence of the soul, it is that which adds something for better or for worse to its natural state, and, therefore, places the

* It has been said that there are habits inherent in human nature and essential to it. We do not wish to enter upon this question now. We mean here to speak only of acquired habits.

soul in a state better or worse than that which it would be in without it.

912. If, on the other hand, it be considered with relation to the powers of the soul, habit is a disposition which imparts greater facility of acting in a certain mode, ordered or disordered, good or evil.

913. As an example of the former of these two significations, we will adduce the condition of the soul rendered morally better by a virtuous act, or by the acquisition of a merit, or else rendered worse by a sin or the commission of a fault.

As examples of the second, may be enumerated all the arts, which are only acquired dispositions enabling the soul to act easily in a given mode in order to produce what the art intends to produce.

914. Now, if we reflect carefully, we shall see that habit in both its significations belongs properly to the intellective and moral soul, but that it belongs to the sensitive soul in the second signification only.

The reason of this is that the merely sensitive soul, neither having any personality, nor being the cause of its own actions, nor having any ideal norm to follow, is susceptible only of a natural perfection of fact. Hence one sensitive soul may be of a more or less perfect nature than another, and even the same soul may gain or lose; but the gain or the loss affects its nature, and not the habit which renders it better or worse. For example, if one sensitive soul has a term larger, more manifold, better organized for preserving life, more exciting than another, that soul is actuated in a higher degree, but this actuation is of the same character as the natural actuation; hence we may say that its nature is increased or diminished, but not that it is rendered better or worse, except in a kind of metaphorical sense, in so far as it is referred by man to the archetypal idea of the animal in question. Thus, also, a body, though it be larger than another, is not better on that account, nor has it a habit. It has merely a larger quantity of matter.

On the contrary, the powers of the sensitive soul may have habits, if we understand the term *habit* in its second signification, that is, as a disposition of the power to act in a certain way.

The rational soul, on the other hand, having an ideal norm to follow, is not only susceptible of having more or less natural activity, but also of being better or worse, according as it conforms more or less to its norm. From such conformation it receives dignity, merit, right to eudemonological good, which does not properly belong to its nature, being a relation to something different from it. It is precisely for this reason that it is called habit, because the soul acquires a better or worse condition in virtue of this relation, which is better or worse, and so reflects its goodness or badness upon the soul.

915. In this way, moreover, we are able to explain how the soul may have supernatural habits, *i.e.*, through being united to Himself by God, who, not being a natural object, does not belong to the nature of the soul, but is something that comes to it from without. Still, in a certain way this kind of habit adds to the essence of the soul what no other habit does—a new nature, as it were.

Passing on now to speak of habits in the second sense, that is, as dispositions of the powers to act in a given way, we must observe several things with respect to their nature.

ARTICLE III.

The Habits of the Powers are Divided Primarily as the Powers.

916. In the first place, we must observe that the classification of the habits of the powers must necessarily follow the classification of the powers themselves.

Now, powers are of two kinds. Some have a single aim; other, higher ones, are so constituted as to rule and give order to inferior ones. Hence habits either perfect a power with relation to its own aim, or else they perfect the order among the powers, disposing properly and strengthening those that have to rule the rest.

917. Again, although a habit naturally perfects a power, still it sometimes indirectly causes damage and disorder in the subject. This happens when the habit perfects those powers that ought to be governed and subordinated, giving them a force and readiness to act greater than that of the governing power; in which case the power perfected by the habit becomes unbridled, and causes disorder in the subject, and sometimes even its destruction.

ARTICLE IV.

The Origin of Habits.

918. Let us now see how habits are produced. In this we shall be aided by having seen how powers and their accidental acts are produced and constituted.

919. We have said that the accidental acts of a being are due to the accidental change of the term which informs that being. These second acts always presuppose a first act, that is, the being itself informed. Now, in the being informed there are principle and term, and the term is what arouses the activity of the principle when it (the term) changes accidentally, so as to rouse a second or accidental act. Now, although this act be transient, still, even after it ceases, it leaves in the principle a residue of activity, so that the principle, being more actuated, becomes more ready, and, therefore, more energetic to respond to any new excitement which it may receive from its term, changing again in the same way as it did when it aroused the accidental act for the first time. It seems clear, according to this law, that the more frequent the acts, the greater must be the habit produced by them, although the habit begins with the very first accidental act.

920. Someone will perhaps say that he cannot understand how the principle of an act must remain more actuated when the accidental act ceases, since the ceasing of this act involves the removal of the term which roused it. If, then, the principle retains an increase of actuality, even after the term has been removed, it is no longer true that

the actuality in the principle of a being depends, as was supposed, on the action and inherence of the term ; but we shall have to account for the greater or lesser actuality of the principle by some other cause independent of what comes to it from the term itself.

To this we reply, that when the transient act ceases, the inherence of the term does not altogether cease. This fact we may observe in the acts of the sensitive faculties, as well as in those of the rational ones.

921. With respect to the sensitive faculties, after an external perception has been received, or a passive or active feeling has been experienced, traces of both remain in the sense. There can be no doubt that the sensitive principle preserves in its felt term a modification produced by the action of external bodies upon the body animated by it, even when this action has ceased. It is equally certain that any passion [πάθος] whatever, or any instinctive inclination remains even after the action upon our felt term has passed away. Now these permanent modifications are the cause of habits, or, rather, they are the habitual activity itself of the sensitive principle.

922. This will be better understood if we reflect that the activity of the sensitive principle is greater and more extensive than appears, since it does not terminate in sensation or in the felt alone, but acts also upon the sensiferous. At every change of the felt it rises to act upon the sensiferous, in order to accommodate it to itself so as to render itself as comfortable as possible; hence its organizing power (nos. 474-489). Hence, after having experienced certain sensations, and having by means of the activity aroused in it by them, accommodated the sensiferous to itself in the most comfortable way it can, its condition is so far improved. This is seen more plainly when we consider the law of the *sensuous instinct*, which is part of its activity. The sentient principle, before it finds a pleasant sensation, cannot turn its activity to producing the same for itself; but when it has found it, it employs all its forces to retain it, and, not being able to retain it completely after the external and exciting

stimulus has been removed, retains it in part, accommodating to it, as far as possible, its own sensiferous, which is not removed. In this way it remains in a state of conation and tension in order to reproduce the sensation as soon as it can, and so, whenever the occasion returns by a new application of the external stimulus, it is already prepared and eager to co-operate with it directly that it may enjoy again the same pleasure; and it is helped to maintain this greater activity, as we have said, by the sensiferous, which it has kept in the attitude most conducive to its own actuation and to readiness for the effect. The fact is, the pleasant sensation does not arise from the mere operation of the external stimulus; what chiefly contributes to excite it are the movements of the sensiferous, which again depend upon that disposition of the soul which springs up during the accidental act, and which, though the act ceases, does not itself cease entirely, because the sensiferous does not cease to be actuated in that direction—even when the external stimulus no longer acts. This theory we find confirmed by the fact that sensitive habits cease when the human body, and consequently the sensiferous, are in bad condition, just as the sensitive activity itself ceases entirely, if the sensiferous is disorganised and destroyed. In this way, then, are explained the habits of the sensitive faculties and all the development of the sensuous instinct, which belongs mainly to an habitual activity.

923. As regards the habits of the rational faculties, they may be explained in a similar way, by means of that term which remains, as it were, fixed in the soul, even when the corporeal feelings which occasion reasoning have ceased.

Indeed, in the order of rationality there are:

1.° A constant and immutable term, which is indeterminate being in its ideal form.

2.° Subsequently, perceptions which are transient acts. But since, as we said, these leave behind in feeling, certain traces, certain instincts that excite images and other feelings, active and passive, in these traces and residues is contained

the stimulus to those acts of the intelligence whereby the activity productive of concepts, &c., is roused. Language, moreover, belongs to the sensible order, in so far as it is composed of sounds and other sensations; and these, in like manner, leave their traces in the inner sensitivity. Thus, by means of the habits of the sensitive faculties and of instinctive movements, we are able to explain how the rational power is roused and drawn to many of its acts by the sensible, even when no external stimulus acts in the sensitivity.

3.° In the third place, the same thing happens in the case of the rational activity as in that of the sensitive. After once performing an act, it retains the propensity to repeat it, and it does this because there remains something of the object in the intelligence. We understand this readily when we consider that the object of reason is the sensible considered as a being. Since *being* belongs solely to the intelligence, reason retains the (ideal) concept of it even when the act of perceiving it is past.

924. But here two things remain to be investigated:

1.° Whether the ideal concept can remain without there being any sensible trace to which to refer it.

2.° Whether the perception of the existence of the real being conceived can remain.

As to the first of these, we hold that the determinate concept of a being cannot be thought actually unless it is referred to some vestige of its reality. Nevertheless, while this vestige lasts, it is certain that the intellective activity acquires habits with respect to it. Against the first part of this position of ours nothing is proved by the fact of *abstractions*, which seem not to be referred to any vestige of reality, because, if we consider carefully, we shall see that they too rest upon, and are referred to, some element of a trace, although not to an entire trace. Hence it appears that the mind can think abstractions only when it is aided by some trace of their reality.

925. On the other hand, as to the persuasion of subsistences experienced in the past, it requires some proof to con-

vince us that a being whose subsistence was experienced by us in the past subsists also in the present, and every proof involves some perception of reality. In like manner, in order to be persuaded that we have perceived a subsistent thing in the past (that is, in order to have the memory of it) the aid of some sensible vestige seems indispensable, inasmuch as the sensible is sometimes the matter of rational cognition, sometimes the stimulus to its act, as we shall afterwards explain.

926. Hence it is that the habits of the single rational powers would of necessity entirely cease, if all the corporeal felt were removed from the soul, and the soul did not receive any other having some relation therewith.

927. It does not follow, however, from this that the remote habits of the rational principle cease entirely, inasmuch as the soul, even when separate, preserves, as we have said (701-711), the principle of space, which is the remote principle of body, and this principle may be the subject of remote habits, relics of the acts of the living being.

ARTICLE V.

The Multiplicity of Habits does not interfere with the Unity of the Soul.

928. Having thus discovered the nature of habits and found that they are activities kept up by the terms of the soul which rouse its acts and powers, we can see that even their multiplicity does not interfere with the unity of the soul. The multiplicity does not depend upon the soul, but upon its terms; and its diverse activities reduce themselves to the identical principle which may be abstractly conceived as a kind of activity, indeterminate when considered by itself, and actuated variously according to the variation of its terms.

929. This principle, moreover, when united to its terms, has an activity of its own, because it is a substance distinct from them and, hence, it increases in actuality and tension; but when entirely divided from its terms, it is no longer conceivable, and, for that reason, not even possible.

CHAPTER XVIII.

IS THE SOUL THE SUBJECT OF ALL ITS POWERS?

930. It is admitted on all hands that the soul is the *principle* of all its operations and all its powers; but some say that the *subject* of the powers requiring a bodily organ is the compound of body and soul, and not the soul alone.*

This is true in this sense that the soul could not have any special sensation, if it were not furnished with the organic body. The special sensations, therefore (and the same may be said of every other act requiring bodily organs), are not obtained by the soul through an activity of its own, but through an activity aroused in it from without itself.

931. But we have shown that acts, powers and habits are due to the same law, that is, that "they are activities roused in the soul by entities different from the soul, but ontologically united with it as form and term." Hence it is that the compound of soul and body cannot be the subject either of powers, acts or habits, because whatever there is in the compound that is not soul, has the nature of term and not of principle, whereas the subject has always the nature of principle.* The soul alone, therefore, is the sub-

* St. Thomas, *Sum. Theol.*, Pt. I, q. lxxvii, a. 5.

† This theory seems to agree better with another thesis of St. Thomas, "that the powers of the soul flow from its essence," which he proves by setting out with this principle, that "the particular accident is caused by the subject in so far as it is in act, and received into the same subject in so far as it is in potentiality." Now, St. Thomas declares that the powers are *special accidents* of the soul; hence they are produced by the soul as their subject, and also received into the soul as their subject. Hence Card. Gaetano, in explaining the meaning of St. Thomas, says that the powers which are in the compound "*ab ipsa anima sunt quia compositum non est actu nisi* RATIONE ANIMÆ" (*Sum. Theol.*, Pt. I, q. lxxvii, art. vi).

ject, because it is, in the same way, the principle of all these activities. Still, of course, some require one term, some another. Thus, the intellective power demands, for its term, ideal being; the sensitive powers, body with its changes, and the rational powers, the two joined together.

BOOK II.

(ANALYTIC.)

ON THE ACTIVITIES OF THE HUMAN SOUL.—HOW THE POWERS OF THE SOUL ARE DISTINGUISHED.

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932. The ancients said that "philosophy is content with few judges;"* and in order to prevent the multitude from meddling with it, the greatest sages secretly entrusted to most select ears of proved disciples the best fruits of their meditations. We, on the contrary, love the people, and speak to the whole human race. What we think we may say to one man, we rejoice in communicating to all. Notwithstanding this, it is only the judgment of the few that satisfies us; because, while all hearers and readers have a right to judge, provided they know, the majority do not know, and would be consulting their own dignity and the advancement of science, if they were to listen in silence. Indeed, even persons of ability who, distracted by the business of life and other pursuits, have not the will or the leisure to study these questions thoroughly, or who have not thought it necessary to devote assiduous attention to them (a vulgar enough prejudice and a common enough habit!), and who, therefore, have not succeeded in arriving at a clear and intimate persuasion of the truth, would be doing well, for their own self-respect as well as for philosophy, if they would abstain from obstructing and confusing it with im-

* Cic. Tusc., ii, 1.

perfect reasonings. At the same time, many of the large class of people who do this, might, instead of being an obstruction, be of great service, provided that among us a severe criticism could chastise all over confident and careless writers, and a new education, by rendering our national morality lively and vigorous (as seems now certain to happen), could increase the dignity of writers and make them honestly ashamed to write anything that they have not long meditated upon and maturely thought out. But who at present feels this most noble shame? Who shows that he thinks conscience ought to preside over the function of the writer? At least, how many think that, before communicating their opinions to the public, it is their moral duty to impart to them all the clearness and certitude which long and diligent study alone can give them, and not to confuse the minds of others with undigested concepts?

933. For which reason, I should not be surprised if I were to hear a condemnation pronounced, with that confidence which, thanks to Heaven! not all my countrymen, though indeed a goodly number of them, are wont to display, upon the questions discussed in the preceding book, as useless, difficult, and, therefore, troublesome; just as if the truths which regard humanity and other beings could be rendered easy at our will and pleasure; or as if it were better to be satisfied with that superficiality of science, which is a false and most presumptuous teaching, than to expend labour and love, in order to be disciples of Nature, ready to follow her courageously, as far as is possible for us, wherever she hides herself, even into her darkest recesses. Should such be the case, we shall leave these effeminates resting on their luxurious pillows and singing to us as if between sleeping and waking, "You will have few companions," and shall resume the thread of our discourse, deaf to the interruption, continuing in this wise:

934. Up to this point, benevolent readers, we have worked out the distinction between the essence of the soul and its powers or activities, and we have seen that the

former is a single principle, while the latter are manifold. In this doctrine we were confirmed by the wonderful ontological law of the communication of beings, according to which many different beings may communicate with one, and arouse in it diverse activities correlated with their diversity. And this does not interfere with the unity of the principle. The principle always remains a first and single act, virtually embracing all the second and manifold acts, inasmuch as the order of being is so constituted that those entities which are multiple when considered in themselves, are one when considered in their principle.

It now remains for us to distinguish the activities of the soul from each other, deducing them from its essence, that is, showing how they gradually flow from that first act, one and most ample, which virtually contains them.

CHAPTER I.

THE DISTINCTION BETWEEN POWERS AND HABITS RESUMED.

935. With this view let us first remember that the soul cannot be really divided without being destroyed.

Nevertheless, as we have seen, its constitution is such that it requires two entities in order to exist, the one a *principle*, and this is itself; the other a *term*, which is not itself, but is what arouses its activity—the condition without which itself is not.

Hence, if the principle is detached from every one of its terms, it vanishes into nothing; but when united to its term, it is something distinct from it, and has an activity of its own, although this activity is aroused by its term as, so to speak, cause of the form.

936. There is, therefore, a distinction between the activity excited by the term which constitutes the principle in act, and the activity of this principle after it has been so constituted.

937. The powers are determined by their term and vary as these vary; the habits have their source in the activity of the principle itself, after it is constituted.

938. Now, we have already said that the laws according to which the principle's own activity increases, diminishes and is modified independently of the term, cannot be deduced *a priori*, but must be ascertained by attentive observation.

Now observation bears witness that the principle has a virtue whereby it endeavours to keep the term united to itself and to maintain it in that attitude and that disposition which best please itself, or even to modify it

somewhat in order to bring it into such attitude, or to press it to itself with a closer bond. These are the four different ways in which the principle, *i.e.*, the essence of the soul, displays its activity.

939. And from these four modes spring the habits by which the powers act more *easily*, more *readily*, more *effectively*, and more *pleasantly*.

The soul, when it puts forth any activity, feels delight; because every activity in it is essentially sensible, and in so far as it is activity, delightful; and the exercise of activity is likewise activity, and, therefore, also delightful. Now, when the accidental act ceases, there remains in the soul a residue of the feeling which has been experienced, and the soul, being inclined to retain the pleasant feeling, increases the activity which tends to reproduce it by renewing the accidental act. And this active propensity is what we call habit.

But how does that residue of the feeling experienced in the exercise of activity remain in the soul?—By the activity of the soul itself, which keeps united to it, as we said, and presses to it as closely as possible, that term which has roused the pleasant act in it. It holds it, moreover, in the attitude best suited to reproduce the feeling, and also helps it to put itself into one of the four attitudes, wherein the principle, *i.e.*, the essence of the soul, is active.

940. So far as the sensitive soul is concerned, it is no obstacle to this that the external stimulus which rouses the actual sensation ceases. The truth is, that it is not the external stimulus that directly arouses it, but the living body, which is the constant term of the soul. Hence, when the external stimulus ceases, the actual sensation indeed ceases, but not the disposition of the animate body, which is kept by the soul in the attitude and mobility necessary for the prompt and lively repetition of the sensation as soon as the external stimulus returns.

Besides this, the traces remain in the fancy, in which the soul, with the aid of the casual internal movements that take place in the living body, where everything is

movement, easily resuscitates the images, which likewise belong to the accidental acts of the sensitivity, and lend to the rational soul a new or varied term, as the sensations do.

941. But the rational soul itself retains the remnants of its acts, which constitute memory, even when those accidental acts have ceased. For this reason, the sensible and intelligible remnants which are left behind in the soul after the accidental acts, are an augmentation of its term, and an increase of its habitual activity.

When, further, the rational soul has advanced so far as to have an end present to it, then it becomes the arbiter of many sensitive and intellective acts, serving as means to that end. In this way it can move of itself, approach more closely to its term, press that term more closely to itself, and apply to itself the external stimuli.

CHAPTER II.

THE DISTINCTION BETWEEN POWERS AND THEIR ACTS RESUMED.

942. The term of the soul, therefore, may receive change and modification from two directions: from the principle itself, which is the essence of the soul, and from a cause different from the soul.

The change of the term may be conceived in different ways:

The term may be conceived as entirely separated from its principle, and then it is no longer term.

One term may be conceived as removed and another specifically different substituted, and then the essence of the soul is changed. The soul is no longer the same as before.

The term may be conceived as specifically enlarged, and then the essence of the soul remains the same; but it is likewise enlarged (nos. 184-199).

For the present let us put aside these conceivable changes, and speak of those that not only can be conceived, but also take place every day, as experience shows.

943. In regard to these we have to say:

1.° That the term of the soul is partly constant and invariable, and places the human soul in its proper species, determines its nature.

The invariable part of the term is twofold: (*a*) a felt extended in which there are continual changes of parts, causing the feeling of excitation, and a determinate organism; (*b*) indeterminate ideal being.

2.° That the term of the soul is partly variable.

This variability consists: (*a*) with respect to the body, in changes of extension, of the internal movement causing excitation, and of the organization causing the continuance of life; (*b*) with respect to ideal being, the changes are all on the side of the soul, in so far as it sees in ideal being the reals perceived in the sense, and draws from it the doctrine on reality; hence its natural object becomes enriched without undergoing any change in itself, because it is the soul that sees in it what it did not see before.

Now all these changes give occasion to accidental acts, which, when they cease, leave habits in the soul.

944. Accidental acts arise, therefore, from the changes that take place in the terms of the soul, without any specific alterations in these terms. But these changes take place either in virtue of the soul's own activity, in which case they are *active acts*, or in virtue of a cause foreign to the soul, in which case they are *passive acts*.

Habits spring from that residue of activity which remains in the soul after the accidental acts have ceased.

Finally, *powers* arise from the specific difference of the terms taken conjointly with the activity of the soul itself.

CHAPTER III.

ON THE ACTIVITY AND PASSIVITY OF POWERS.

945. Granting that the activity of the soul arises in virtue of the action of its term, it follows that, in the logical order, we conceive in the soul, first, *passivity* and *receptivity*, and afterwards *activity*.

946. I say "in the logical order," because in the chronological order activity is not always subsequent to passivity. We must, therefore, distinguish the second and accidental acts from the first act which places the soul itself in *esse*.

In the second acts of the soul, as observation proves, passivity precedes activity, not only in the logical, but also in the chronological, order. The soul first feels and receives, and afterwards moves and acts. But this cannot possibly be true with respect to the first act, which is that whereby the soul exists, inasmuch as, before it exists, it cannot be passive. Hence, in the case of this act, passivity and activity must be simultaneous.

But considering that the relation which passivity and activity hold to each other in the first act is similar to that of cause and effect, so that the first act arises in virtue of the action of the term, we say that, in the logical order, passivity precedes and activity follows, although, so long as there is no activity, the being does not exist.

947. Inasmuch, therefore, as the activity arises from passivity, it remains to be seen whether the passive powers can be called specifically distinct from the active.

If we adhere to what we have already said, that powers are distinguished according to the specific distinction of terms, passivity and activity, properly speaking, do not constitute different powers, but rather different faculties or

functions of the same power. Indeed, activity is a continuation of that movement which begins in passivity, just as the line is a continuatian of the point.*

In fact, the term is in the principle as an agent, and hence the principle appears as the passive side; but at the same time the principle has come into act, an act which fits it for its operation, and so has become active, has become an individuated principle. Now when the principle is already placed in *esse*, it can first be passive in its own way, and then active. Hence there is no difficulty in conceiving that, in the process of the second acts, a kind of passivity should precede the activity, not only logically, but also chronologically.

Seeing, then, that in *passivity* lies the beginning of the soul's *activity*, which gives birth to the movement—spontaneous or free—of the active principle constituting the soul, it is plain that the passive faculty and the active one that corresponds to it, constitute a single power having a single term, but distinguished into two faculties by the different modes in which it exercises itself.

948. And here we must carefully bear in mind that, in the intellect, instead of *passivity*, there is *receptivity*. The reason is, that the term is not produced, either wholly or in part, by the activity of the principle, this term being by its nature immutable, unalterable; hence, between it and the soul there does not exist, properly speaking, the relation of action and passion, but that of presence and intuition. Such is ideal being. The felt, on the contrary, receives its nature as felt from the sentient principle itself, as we have shown, and it is, therefore, by this principle that it is posited and constituted as such, that is, as felt.

* *Anthropology*, 367-370.

CHAPTER IV.

HOW THE TERMS WHICH ORIGINATE THE POWERS OF THE SOUL ARE DISTINGUISHED.

949. The powers, therefore, of the human soul are distinguished as its terms are distinguished. In saying this, however, we must observe that the terms first inform the soul, that is, give it its first act, and then, by undergoing modifications without losing their specific nature, excite and occasion the second acts. Now the activity of the soul, considered with reference to these second acts is called power.

950. Hence follows the circumstance which we have already pointed out, that there are in the soul a sensible and an intelligible, which belong to its nature, because they bring its essence into act, and there are also a sensible and an intelligible that belong to its powers, that is, to the powers of feeling and understanding.

951. But if the diversity of terms is the foundation of the diversity of powers, we shall not be able rigorously to class the powers without first inquiring how the terms differ specifically from each other. Let us therefore do this.

Terms are entities acting in the soul. The question of how they differ from each other is one that relates to the intrinsic order of being, which, as we have said, cannot be invented or discovered *a priori*, but must be brought to light, as it is, through attentive observation, so that we shall know it just as far as observation aids us, and not one hair's breadth farther. Hence, we must remain content with what observation affords us, unless we wish to manufacture a philosophy out of vain delusions.

Now, all that can be derived from observation with regard to the primitive order of being comes to this, that whatever entity we can think is referable to one or other of these three categories: (1) either it is *feeling* or something that comes within feeling, for example, the force which changes our feeling; (2) or it is *idea*; (3) or it is *order* between feeling and idea. In each of these categories we find the same identical being. In so far as it belongs to the feeling we call it *real being;* in so far as it belongs to the idea, we call it *ideal being*, and, in so far as it belongs to the order between real and ideal being, we call it *moral being*.

Inasmuch, then, as all possible entities are reducible to three categories, the terms of the soul, being entities, must first of all be reducible to these three modes of being. Hence we can easily see that the trinity of the soul must appear both in its *essence* and in its *powers*, and this without prejudice to its unity, because in all these three modes there is the one, identical being, not divided, but entire.

952. At the same time it is deserving of consideration that moral being, since it results from the union of the two others, seems, in the logical order, posterior to these. But we must distinguish between finite being and absolute being. In this, *moral being* is not posterior, because completeness and perfection are essential to absolute being.

On the other hand, every finite intelligent being is constituted by being under the form of reality and being under the form of ideality, but it is not necessary that being under the form of morality should actually concur in its constitution.

953. At the same time, wherever the two forms, reality and ideality, occur united, there must always be some order between them, because being in these two modes necessarily tends to complete itself, and form a perfect union with itself, thus giving rise to the third mode, which is the moral form in act. For this reason, if in finite intelligent beings we do not necessarily find the moral order in act, that is, what we call *moral good*, still they can never

be without the *power* to attain this, and also the *tendency*, and, finally, the *necessity*, so that the order may be perfect.

I say that they cannot be without the power, because this follows directly from the compresence of real and ideal being, since real and ideal being, as terms of the soul, arouse in it two powers. Now, these two powers, conjoined in the unity of the soul, give occasion, first, to a third power, which is *reason*, and then this gives rise to the moral power. Reason unites the ideal with the real, apperceiving the latter in the light of the former. In this way it sees the order of being, to which if the soul adheres with all its rational activity, it becomes morally good, or in the contrary case, becomes bad.

But the soul at first possesses this power only virtually, because it has not naturally present to it the order of being, but only being in its ideal form, and, partly, in its real form. Hence, in the soul the moral power is posterior and only virtual.

954. We must next consider in what manner real being and ideal being concur in constituting the soul, because the two do not concur in the same way. The difference consists in this, that real being is both principle and term of the soul, and, in so far as it is principle, constitutes the essence of the soul, whereas ideal being is not principle, but only term, for which reason it does not constitute the essence of the soul, but only concurs to produce it as formal cause, or, if the expression be preferred, as cause of the form, in so far as it awakes the act of intelligence in the soul.

955. Now by knowing that real being performs two functions in the soul, that of principle and that of term, we are enabled to understand much better how the act of moral being is generated, because moral being is rooted in real being in so far as it is principle, and not in so far as it is term. The truth is that morality has properly the nature of a principle, and not that of a term, since it consists in the delight which an intelligent subject takes in being, known in so far as it is being. In this delight con-

sists the complete order between the real and the ideal. But this order must first be presented to man by reason, as the object of his rational activity, that is, of his will, and thus it is that it constitutes the term of the moral power.

Now the moral order arises in this way: The intelligent real being knows, in ideal being, being under all its forms, and proportionately delights in it. Why does he delight in it? Because he knows it, or, which is the same thing, finds it in the ideal. It is, therefore, by means of ideal being that he delights in being in so far as it is being under all its forms. This delight is the moral order in the soul, is what makes a man *good*.

956. If we now gather together all that we have said in this chapter, we shall readily understand that, since there are two terms actuated in the soul, there must likewise be two primitive powers, viz., sensitivity and intelligence, and that, since there is a third term virtually contained in these two, there must be a third, virtual power, which is that of morality.

957. If we add to this the results we arrived at in the preceding chapter, viz., that every power begins with being passive or receptive, and passes on to being active, the two powers, viz., sensitivity and intelligence, will each have two faculties, one passive, another active.

958. As regards the moral power, on the other hand, since its term has not an actual, but only a virtual existence, that is, must be produced by the acts of the other two powers, or to speak more correctly, of the rational soul itself which directs those powers, it is plain that it cannot have any passivity, but must remain a purely active power. The passivity which we refer to it is only that of the powers that produce it.

CHAPTER V.

ON THE DISTINCTION BETWEEN THE ACTUAL AND THE VIRTUAL POWERS OF THE SOUL.

959. We must, therefore, distinguish two kinds of powers in the soul, the *actual* and the *virtual*, meaning by actual those whose term the soul carries with it in its own nature, and by virtual, those whose term the soul, instead of carrying with itself, produces through its own operation.

It is true that even the powers which we call actual, so long as they remain immersed in the essence of the soul, are not distinguished, being unified in the unity of the principle in which they lie, as it were, quiescent; or, at least, they cannot be distinguished as powers, since the concept of these involves a *relation* to diverse kinds of accidental acts, which they are ordained to produce. But when the *accidental acts* arise, when that term which is already in the soul undergoes a change without altering its specific nature, then the powers which are called actual make their appearance.

960. Now, as the proper terms of the human soul are two, the *felt* and the *understood*, so its actual and primitive powers must be two, *Sense* and *Intellect*, each endowed with an active as well as a passive faculty—the sense, with the active faculty of *instinct;* the intellect with active faculty of *will.*

961. But, given in the soul the felt and the understood wherein the two powers of sense and intellect terminate, there springs up the term of a new power, I mean the conjunction of the felt with the understood. Through this conjunction "the felt is known in the understood," that is, in the idea, and consequently can be willed and loved in so far as known. Hence there arises a derivative power, viz., the *reason*, whose office it is to apprehend the unity or identity of being in the felt and the understood, that is, in the reality and the idea, as also in their order. Now

this power, although resulting from the other two, and, therefore, properly called *derivative*, exists in man's nature, not only virtually, but actually, because, as we have seen, there is in the soul a primitive fundamental perception of its own animality, in which consists that union of the intellective soul with the body, which gives rise to the human compound. And this first and fundamental perception is the first act, by which the *reason* exists (254-285).

962. But for us to have in our soul the real and the ideal as the terms of sense and intellect, and also their logical conjunction as the term of the reason, is not enough in order that the *moral power* may be brought into act. It is furthermore necessary that we should have perception of, at least, one intellective being upon whom may be bestowed as much affection as he deserves, or in other words, a being whom we may esteem and love for his own sake, and not simply as a means to our own benefit, which there is nothing to prevent us from doing with non-intellective beings. Now it is in this just measure of our esteem that morality begins.

963. The nature of morality, again, includes a certain relation to the whole of being, because it is that act which completes and perfects it. Hence it can have as its object only the intelligent being, which has the nature of end, and has this nature because it attains to the infinite.* Man, therefore, although he feels, does not naturally perceive or know any intelligent being, not even *himself*, because *his own animality*, of which he has a natural intellective perception, is not himself. He lacks, therefore, the term of the moral power, and must procure that term by the use of his reason. On this account we think we were right in calling the moral power not only resultant or *derivative*, but also *virtual:* for human nature contains only the virtue to produce the term of this power, and so to bring the power itself into existence. The same may be said of bilateral liberty which follows from the moral order, as we have shown ; and the same also of *reflection*, which presupposes perception and is a function of the reason.

* *Principles of Moral Science*, chap. iv, art. viii-x.

964. Hence we may conclude that the powers, as well as the faculties and functions, spring one from the other, when they, by their several accidental acts, give a product, which becomes itself a term of the soul's activity, and a variable term, so that the activity relating to this variation acquires the nature of power, faculty or function.

965. And here we deem it useful, before we come to speak in detail of the special powers, to place before the reader a table of the powers, actual as well as derivative and virtual, in order that he may be able to take in the whole body of them at one glance, and so follow us more easily in the journey on which we are about to enter.

SYNOPTICAL TABLE.—No. I.

TABLE OF THE POWERS OF THE SOUL, SHOWING THE INTRINSIC ORDER OF THE PRIMORDIAL POWERS IN THE ESSENCE OF THE SOUL.

Essence of the Human Soul, Source of the Primitive Actual Powers.

SENSE	INTELLECT
1.° *Passive Function* (SENSITIVITY).	1.° *Receptive Function* (UNIVERSAL INTUITION OF BEING).
2.° *Active Function* (INSTINCT).	2.° *Active Function* (UNIVERSAL VOLITION OF BEING).

RESULTING ACTUAL POWER.

REASON

Constituted by the Fundamental Perception of the Corporeal Feeling.

1.° *Function partly Receptive, partly Active* (THEORETIC REASON).	2.° *Active Function* (PRACTICAL REASON).

Whence spring the VIRTUAL POWERS.

REFLECTION.	MORAL POWER. 1.° Moral Spontaneity. 2.° Bilateral Liberty.

CHAPTER VI.

ON THE PRIMITIVE POWER OF *SENSE.*

ARTICLE I.

On the Power of Sense in General.—Psychical Sensitivity.

966. One of the terms of the human soul, as we have said, is the felt extended. With this term is correlated the corporeal sensitivity.

We must not, however, believe that all the sensitivity of human nature ends here. Corporeal sensitivity is but a special sensitivity.

967. Let us recall to mind that the soul has the nature of *principle*, which we cannot conceive without conceiving along with it its correlative term, so that a principle without a term would be an absurdity, therefore nothing.

But if we conceive the principle as united to its term, we have at once the concept of a thing which has its own existence, essentially distinct from the term to which it is united, and is, therefore, furnished with an activity of its own.

The nature of this activity consists in *feeling*, for which reason we have defined the human soul as a *substantial feeling* (81).

Now, a feeling cannot be conceived without those two poles, so to speak, which we have called the *sentient* and the *felt*. If, therefore, the human soul is, on the one side, essentially feeling, and, on the other, has the nature of principle and not of term, we must say that the soul is essentially felt as a principle, and not as having the nature of a term. But since the felt, as such, has the nature of a

term, it follows that, in the felt principle, principle and term are identified, which means that the same soul which feels is that which is felt in its term, so that the principle, in its felt term, also becomes felt, which is the same as saying that it becomes individuated.

968. We must, therefore, distinguish two kinds of feeling, one relating to the principle of the feeling, the other relating to its term. The principle and the term are sensible in different ways. What is felt is properly the term; but in the term there is the principle, so that the latter comes to be felt solely because it adheres to, and lies in, the term, whose essence consists in being felt. Hence, the soul, that is, the principle, has not a sensibility of its own, but only a sensibility borrowed from its term. At the same time, its term, in so far as it is its own term, and not a foreign one, is produced by it, for the simple reason that it is its term. But if we consider the soul at the moment when it has not yet produced its term, it is a thing altogether insensible and not a soul. And although that moment can and must be conceived by the mind, because, in fact, it belongs to the order of being; yet it would be a mistake to suppose that this moment is an instant of time different from that in which the soul receives its nature and individuality by having produced its term. The truth is, the soul receives its nature in an instant so brief that the soul which produces and the soul which has produced the term are not divided by a single tick of time. In the same instant in which the term is produced, the soul is the producer, so that in the product the soul is felt as the producer. The beginning, therefore, and the completion of the productive act fall in the same instant, without interval of any kind. Nevertheless, these are two ontological moments distinguishable by the mind, which in beings sees an intrinsic action, and, in this action an order, and in this order a before and an after, altogether different from the before and after of time—in a word, not a chronological, but an ontological before and after.

969. Returning now to the question in hand, when the

soul is once formed, it feels the principle and the term; but the manner in which the sentient principle is sensible differs very widely from the manner in which the felt term is sensible. For,

1.° The sentient principle is not sensible in itself as simply producing, but only through the felt and in the felt produced by it, whereas the felt is felt and, therefore, sensible by its own essence.

2.° The sentient is sensible equally in every felt, whence it may be called a *universal sense*, whereas there is great variety in the felt terms which mutually exclude each other, whence their sensibility may be called a *special sense.*

3.° The sentient, as such, is always identical, however much the felt may vary, because, having the nature of principle, it is, like the vertex of an angle, one and simple, although the two lines which form it be more or less divergent and more or less long. Nevertheless, the sentient feels itself along with its connections with its various felt terms, and in this way the soul feels its own powers, functions, faculties, acts, &c.

970. To this kind of feeling by which the soul feels itself and all that it does, we give the name of *pyschical sensitivity.*

ARTICLE II.

Special Sensitivities.

971. It now remains for us to say something of the special sensitivities.

In the human soul we can conceive four such sensitivities, at least as possible, which we shall call the *corporeal*, the *pneumatic*, the *ideological* and the *theoretic.*

The corporeal and the ideological sensitivities do not admit of any doubt; but the pneumatological and the theoretical are not equally evident to all.

972. The nature of a special sensitivity requires that the felt be a different entity from that of the sentient. Hence, in

every special sensitivity there is an *otherness;* in other words, the soul feels a something different from itself. This otherness is a characteristic common to all possible special sensitivities.

973. But it manifests itself in two modes, as *passivity* and as mere *receptivity*.

Passivity occurs in the *corporeal* and *pneumatic* sensitivities; *receptivity* in the *ideological* and *theoretic*.

974. We must carefully distinguish between *passivity* and *receptivity*, which are the two modes in which the soul feels and perceives otherness, that is, an entity different from its own. The two characteristics which distinguish them are these:

1.° In *receptivity* the thing received does not undergo any modification from the soul which receives it, because it is immutable; just as a gold coin when put in a purse does not change its nature, or cease to be what it was before it was put there. In this manner it is that *ideal being* is in the human soul.* On the contrary, in *passivity* the entity which acts in the soul takes something from the nature and the activity of that which is acted upon, in other words, of the soul itself, which contributes to give to this entity its being. Thus the *felt extended* receives extension from the *soul;* † and the foreign force which changes it, though opposed to the tendency of the soul, produces its effect with the aid of the soul, which is roused to terminate its act spontaneously in another extension.

2.° In receptivity the soul is not, properly speaking, modified: it only acquires something which it had not before. Thus the purse in which the gold coin is put does not change its nature, but it is worth more when full than when empty. And, if we take a pole and attach to it a piece of iron in the form of a dart, the primitive pole is neither changed nor modified; but there has been produced a new instrument which receives a new name and has a new virtue. And, in like manner, when we add ideal

* *Restoration*, &c., Bk. III, chap. xxxix-xlvii.

† *Anthropology*, Bk. II, sec. i, chap. vii; nos. 92-134.

being to a sentient principle, the principle is not, properly speaking, modified; but it has acquired something which it had not before, and from being a sensitive soul, has become a rational one. On the contrary, *passivity*, properly speaking, does modify the soul, as in the case of the corporeal sense. At the same time, if the felt is brought into act by the soul itself, the soul does more than receive: it acts, and its action is reducible to the general concept of modification. Afterwards, when the felt is changed, the soul must again coöperate in that change, and, for a little may resist; but resistance and subsequent yielding to an act is already a modification of the acting subject.

To ideal being the soul cannot offer resistance of any kind. Neither can it coöperate in forming it. It is obliged, therefore, simply to receive it, for the reason that, with respect to ideal being, the soul does not exist before this being comes into it. It cannot, therefore, resist it, because it cannot act before it is. Hence in this occurrence nothing having the nature of a modification takes place in the soul. There is merely a new acquisition on the part of the soul, and a creation on the part of that virtue which ideal being places in it.

To *passion*, therefore, corresponds *doing;* to *reception*, *giving*. The Schoolmen sometimes confounded these two modes, a fact which introduced into their doctrines a certain vein of *sensism*, in that they were misled into speaking of the intellect as if it were altogether a passive power, whereas it is a receptive one, and, in this way, they made it too similar to sense.

ARTICLE III.

Corporeal Sensitivity.

I.

Diverse Modes of Corporeal Sensitivity.

975. Corporeal sensitivity has for its term the extended, with its passions and modifications, that is with the *internal*

movements of the felt extended, and the organization or a given arrangement of parts, and, hence, the *harmony* of the sensible movements.

The felt extended implies the *continuous* and a single continuous,* because, if there were two, the two felt terms would no longer have any relation or communication with each other. And since the sentient is wherever the felt is, and nowhere else, there would in this case be two sentients as well as two *continua*, without relation or communication with each other.

But, if the parts of the continuous move according to a certain law, without ceasing to be continuous, there arises the excitation of the sentient and a lively sensation corresponding to the movement of the felt parts. These movements and corresponding sensions may be many at the same time and in different places. The reason is that they are conjoined by the one felt continuous, in which they have their origin, and hence by the singleness and simplicity of the sentient principle.

The actual and reflected attention of men is much more readily directed to the excited sensations corresponding to internal local movements, than to the universal and uniform feeling of the whole continuous; hence we seem to feel simultaneously in various places, whereas the truth is that we feel a single continuous extended in a non-uniform way, in some parts with more vividness and variety than in others, by reason, as we have said, of the minute movements that take place in it.

976. The felt extended is *limited*, but, by itself, it has no *figure*, for the reason that for the perception of figure it is necessary to distinguish the lines and surfaces which surround and form it, and these are not distinguished in the fundamental feeling, and cannot be distinguished without the perception of something lying beyond its limits.† Now the fundamental feeling does not go beyond the limits of its extended, and, therefore, it does not distinguish

* *New Essay*, vol. ii, nos. 823, 824.
† *Anthropology*, Bk. II, sec. i, chap. vii, art. iv, chap. viii, art. i-iv, nos. 134-180.

the limits of the extended, beyond which feeling ceases. In order to understand the difference between limits marked by a line or surface *perceived*, from the limits determined by the cessation of feeling, we may adduce an example borrowed from vision. If I look at the square table at which I am writing, I distinguish the lines by which it is bounded, and I do so because my eye embraces at the same time what is beyond these lines, a part of the room. But if, keeping my eyes open, I wish to see the limits of my vision, that is, of the visual range, I can neither see nor fix them, much less compare the visual space with any greater one, because beyond the visual range my vision does not extend, but ceases. For this reason I am entirely unable to say whether the range to which my vision extends is round rather than square or any other shape, if I mean to derive this shape from vision alone, and not from ratiocination.

977. The manner in which the special sensions arise from the excitation of the fundamental feeling has been already treated of (nos. 315-317, 420-428).

But it must be confessed that philosophy has not yet succeeded in discovering the grounds of all the very singular varieties of sensions, or even in enumerating or classifying them completely.

We have distinguished them into *figurate* and *non-figurate*. The former we have called likewise superficial, because they form the surface, or part of the surface, of our bodies and of bodies external to ours. Among such are the sensions of touch, vision, &c. The *non-figurate* have been almost entirely neglected by psychologists, but have been treated with more attention by physiologists.

978. We must observe that the figurate felt is not felt as in us, that is, when we feel it we do not refer it to ourselves. It is felt in itself as a surface, which is certainly not in us as a small surface might be in a large one. Indeed by itself it has no place, or, if the expression be preferred, it is its own place. Thus the visual space is not in another space larger than itself, because it is all the space

that is seen, neither more nor less. The place, therefore, in which the sensations are is formed when we consider a part of the superficial sensation in relation to the entire surface felt, or when, by means of the imagination, we place several surfaces together, thus forming a single surface, which, if not felt, is at least imagined or understood, in that way in which we have said that the concept of unlimited space is formed, by means of motion.* But of the locality of sensions we have spoken in the *Anthropology* (nos. 205-229).

979. At present we will merely observe that by means of this property which figurate and superficial sensations have of not being in any other space than themselves, we are able to understand how the internal sense of the fancy is able to reproduce them. The fact is, these sensations have not, by themselves, any local relation to our body, in other words, they do not appear to us as located, either at the surface or in the interior of our bodies, but, as we have said, in themselves. Hence there is no reason why to the movements, for example, of that part of our brain which is the organ of fancy, there should not correspond the appearance of a church and a belfry; since the *felt* is not the brain as we know it anatomically, but is what appears to us, and certainly it does not appear in the brain, which is not seen, and, indeed, has no other locality than that which appears in the image itself or in vision.

980. How then, it may be asked, do we perceive the surface of our own bodies? How do we know that the surface of the human body which appears to us is the surface of our own body and not of that belonging to another person? To be sure, the mere superficial sensation does not tell us this, but we know it from superficial sension taken in connection with other sensions. For example, if I am touched by a foreign body I have a single sension, but, if I touch myself I have two sensions which I refer to the same place; and so I conclude that I am not only the touched but also the toucher. Again, if I see a body, and if,

* *New Essay*, vol. ii, nos. 821, 822.

when this body is touched by another body at a point seen by me I experience a tactile sensation, I conclude that the body which I see is mine. But more has been said of this in the *Anthropology* (*ibid.*).

981. Now the ground of the diverse forms of sensions has not, as we said, yet been investigated. Still the general principle from which to deduce it may be gathered from our whole theory of corporeal feelings and enunciated thus:

"Inasmuch as the internal movement which takes place in the felt continuous is, if not the cause of sensions, at least the extra-subjective phenomenon correlative to them, there must correspond to the variety in the sensions an equal variety in such movement; and this variety, if it is not the ground of the variety in the sensions, may, at least, represent it."

In order to apply such a principle, we must enumerate all the varieties that can be conceived in the internal movement of the felt continuous and of the various organs, and then, with the aid of experience, try to find out the variety of sension corresponding to each of these varieties. This task belongs to the future of philosophy: we, who are very far from being able to undertake it, shall content ourselves with subjoining a mere sketch, which may perhaps lead the way to the great study to be devoted to the application of the principle.

982. 1.° In the first place, the internal motion differs with different organizations.

Indeed, difference of organization not only occasions diversities in the internal movement, but, even prior to that, it gives occasion to a diversity in the fundamental feeling, and that in various ways. For example, in those parts of the body in which the texture is finest and most compact, there must needs be accumulated more fundamental feeling than in other spaces of equal size, in which the texture is coarser, more porous and less compact.

983. 2.° The total bulk even of the sensible animal body determines the extent of the fundamental feeling. The two vary in the same ratio.

984. The internal motion which produces the acquired sensions varies according as in the various parts of the animal body the fundamental internal movement produced by the vital and sensual instincts varies. It is even true that the very operation of these instincts receives its law from the organization.

985. At all events, we may say that the internal motion which corresponds to the acquired sensions finds the ground of all its variations in three causes, 1.° In the various organization of the body and its single parts; 2.° In the various activity of the animal instinct; 3.° In the variety of the stimuli that excite the motions in question.

986. But is the internal movement of which we are speaking a merely extra-subjective phenomenon? Or is it also a subjective phenomenon? In order clearly to answer this question, let us describe the facts.

The sensions of colours and sounds follow, respectively, a vibration of the optic and acoustic nerves. This vibration or oscillation is the internal movement of which we speak: the colours and sounds are the sensions. Now it appears that in the sensions we do not, in the smallest degree, perceive the oscillation or vibration of the sensor nerves. Hence the internal movement of which we are speaking is outside of sension: it is not felt; therefore, it is extra-subjective.

But how do we know that the vibration takes place in the optic and acoustic nerves? We know it by inference. At the same time there is nothing absurd in imagining that this vibration might be a matter of external observation; and, certainly, when we imagine a vibration and an oscillation, we mean something that we know by external observation, because, if we had never seen or felt any vibration, we could never imagine that the nerves of the sight or the hearing vibrated. This vibration, therefore, is one of that class of phenomena which fall under the sight and the other external senses. Let us now apply our eyes to watching the oscillatory movements of a spiral spring. We have here another visual sension, in which

the felt is the spring with its movement. But exactly similar to this movement is the internal movement of the optic nerve to which the first sensation of colour corresponded. Now this internal movement which we have seen to be extra-subjective with respect to the first sension, has, with respect to this second one, become subjective, because it forms the felt term thereof. Every internal movement, therefore, to which a sension corresponds, is something extra-subjective relatively to that sension; but it may become a stimulus to a second sension which takes it as its term. And here we must reflect that with respect to the second sension we may make use of the same reasoning as with respect to the first; because, if the second sension had, as its term, the internal movement of the first, it had not for its term its own internal movement, which may, however, become the term of a third sension. Thus the eye which sees the rapid movement of the spiral spring as it lengthens and shortens, or even supposing it could see the vibrations of some other person's optic nerve, would not for that reason see the vibration excited in the optic nerve of its own eye, to which its own sension corresponds. We may go on indefinitely with the series of sensions, and in general this proposition will always remain true, that the internal movement of each sension is not the felt of that sension, but may become the felt of a subsequent one; for which reason it is extra-subjective with respect to the former, and subjective with respect to the latter.

987. Here we must carefully consider how movement can belong to the felt. The movement in the felt is not a single and simple sension, it is a succession of sensions excited in the same felt extended. Since, then, with a single organ, let us say the eye, we perceive a movement, for example, the "falling of a meteor," we must suppose that our organ is formed of a complex of parts, each of which can freely move independently of the others, so that it is, so to speak, a complex of distinct organs. As such, indeed, we have described the construction of the optic nerve, not as a

single nerve but as a bundle of filaments, like small tubes, each of which can vibrate backwards and forwards with a different velocity, and thus give rise to a different colour and different successive colours, according to the successive vibrations of the various filaments.* In this way, difference of organization renders different the manner of feeling, since, if the eye were not so constituted that the minute threads composing the cords were able to move each separately with a motion of its own, but all were obliged to move together with one measure and in the same time, there would be neither varieties of colour, nor any sensation of movement.

988. The various colours and sounds correspond to the differences of number in the vibrations and oscillations of the nerves which preside over them. Now it is clear that the greater readiness and rapidity with which some parts of our body move as compared with others, depends, 1.°, on the special organization, which contributes to render them more ready and rapid in motion, and, 2.°, on the greater activity of the animal instinct which manifests itself in them. Hence, again, the difference of organization and the consequent different action of the instinct represent the reason of the difference between the various senses.

989. But what relation has the number of vibrations to the sensation of sound, what resemblance? None; and, therefore, we said that the former is an extra-subjective phenomenon with respect to the latter, which is subjective and of an entirely different character. Still, if it be admitted that feeling is bound up with the atoms of matter, it is no longer difficult to conceive that the internal movement, which does not destroy continuity, should not displace the felt, because this is by nature continuous and, therefore, without sensible parts, but should alter it, producing in it that excitation which we have elsewhere described and which depends upon the primitive laws of the vital instinct, whose ultimate ground is lost in the mystery of creation.

990. The size, therefore, of the sensible body, its form,

* *Anthropology*, Bk. II, nos. 130-133.

the form of the single organs, the diversity of the tissues, the diversity of the molecules wrapped up in each other and hence of orders more and more intimate, their different minuteness, their different shapes, their different modes of contact, their special mobility, the variety of the directions in which they move, the various communications of their motions, their more or less propagable motions, the celerity or frequency of their movements, and other such differences which occur in animal bodies and in their parts, are the circumstances which require to be studied in relation to the various kinds of sension, and to the modes and degrees occurring in each kind. They are, in fact, the circumstances which represent the reason of all these varieties and modifications.

991. The second special sensitivity distinguished by us was that which we called *pneumatic sensitivity*.

We mean by this the faculty of feeling the spirits of others, or receiving from them a feeling which represents them.

992. This faculty has been so little studied that it will seem something almost new; still, observation renders its existence probable to me.

We must, however, observe that, man being a mixed being, his sensitivity can never have as a direct term a pure spirit; but I believe that one soul feels another soul or spirit through the medium of the body and in the body.

In fact, it is certain that an animate body produces sensions of a character altogether different from those produced by an inanimate body. I remember to have read in some one of the works of Count de Maistre an eloquent and very fine piece on that mysterious and recondite something that there is in a kiss and in the feelings which it produces. It appears that in such communications there is something living and spiritual that cannot be attributed solely to matter. In love and friendship it seems as if, in the affection as also in the union of two bodies, the two souls felt each other and communicated with each other.

993. It seems to me also that this spiritual communica-

tion ought not to be restricted to beings of the same nature: angels also might in some way render themselves sensible to men by acting in their bodies in a manner suited to them.

The question abounds in matter for thought, and would deserve careful study.

II.

On the Phrenology and Philosophic Works of Gall and Spurzheim.

994. Leaving the above question to be considered by the philosophers who shall come after us, we will here pause a moment to consider what merit belongs to the works of Gall and Spurzheim, regarded in the light of what we have been saying.

The principle with which the theory of these physiologists sets out is, that "the brain is not a single organ in which all the operations of the understanding have their origin, but a complex of nervous systems or distinct organs, to each of which belongs the production of a special faculty."

995. In this principle, and in the theory which these authors derive from it, we must distinguish a true part, which forms a solid basis of phrenology, and a false part, which has been associated with it from ignorance of the most important and evident psychological truths. The observations to which the said authors appeal bear witness to the true part. The false part which they add to it, so far from being the result of accurate observations of the form of the brain and of its parts, is only the product of imagination and caprice, which continually introduce themselves in the works of such students of nature.

996. The sum of the true part is this:

The soul is a single principle, but it has several terms. One of these is the extended, which arouses in the soul the corporeal sensitivity generally. Now it is a fact that in this extended term we can distinguish various organs, which furnish the reason why the bodily sensitivity, variously modified, divides up into different modes of feeling, which are then considered as so many faculties.

Hence, there is no reason why the brain, which was formerly considered as a single organ, should not be recognised to be an aggregate of different organs, each presiding over one branch of corporeal sensitivity, provided always that we do not believe each organ to be independent of the rest, or to be a continuous extended separate from the others, the fact being, as we have seen, that the term of a soul is unquestionably a single continuous, whose parts are variously organized and move with so much harmony that all coöperate in the special movement of each.

997. This, and this alone, can be the basis of Phrenology. Hence we can readily see the errors which Gall, Spurzheim, and other phrenologists have mingled with it. These are chiefly the following:

First Error. They confound the order of sensitivity with the order of intelligence.

The functions of the different organs composing the brain may be regarded as so many faculties of the sensitivity, but certainly not of the intelligence. What produced the confusion was, that, inasmuch as the sensitivity supplies to the intelligence its matter, for every branch of sensitivity the intelligence displays itself in a different mode, because it receives different matter.

Second Error. They, or to speak more truly, some of them, did not observe, that even with regard to the order of sensitivity, this power is not a production of the organ alone, which is nothing more than the term of the sentient principle denominated the soul; and that the power of feeling springs from the union of principle and term, of soul and organ, and not from this latter solely. Indeed this power belongs to the principle and not to the term, to the soul and not to the organ, inasmuch as the principle is the subject of all the acts of the power, and, therefore, of the power itself.

Third Error. To this second confusion between the organ and the sentient principle, coupled with the other confusion between the order of sensitivity and the order of intelligence, was due the false notion which some phrenologists formed of the human understanding.

They maintained that, as the brain is an aggregate of organs, so the human understanding is a complex of very many widely different acts. If they had carefully considered that he who understands, although he perform many and different acts, is always the same subject, they would have recognised the unity and simplicity of the intelligence as a faculty of a single and perfectly simple subject. The understanding does, indeed, perform many acts widely differing from each other; but it is not the aggregate of its own acts; it is the author, cause, and sole principle of them, anterior logically to them all, and, to most of them, even chronologically.

Fourth Error. Hence we may recognise how vain is the boast which these physiologists make that they have anatomised intelligence, thinking that by applying the knife to the mass of the brain, they have really planted it in the intelligence itself! It is clear, moreover, that such physiologists, who confound things that are wide as the poles asunder, cannot be well suited to make a correct classification of the faculties of the human spirit. Hence when Spurzheim, for example, divides the faculties of the soul and the spirit into *affective* and *intellective*, he does not observe that there are affective faculties which are also intellective, since the intelligent subject has affections that come from the intelligence. When, again, after having divided the affective faculties into *inclinations* and *feelings*, he reduces the inclinations to the precise number of nine, which, in terms that would frighten the dogs, he calls *habitativity*, *affectionivity*, *combativeness*, *destructiveness*, *constructiveness*, *comestivity* and *secretivity*, meaning the inclination to inhabit, to love, to fight, to destroy, to construct, to feed, and to secrete humours, he forgets all the intellective and moral *inclinations*. Moreover, he does not enumerate the *primitive* inclinations of the soul, but only certain *effects* that are produced in the animal by the joint action of many primitive inclinations and faculties. For example, the inclination to have and construct a habitation is not a primitive faculty, but is the result of various needs which

the animal feels, and to satisfy which it moves instinctively; and the same is true of every other of these inclinations. Coming to the *feelings* of the soul, Spurzheim declares that they are exactly twelve in number, four of which are common to man with the beasts, viz: *self-love*, *approbation*, *circumspection* and *benevolence*. But he does not observe that in these four feelings there is intelligence and that, therefore, they belong to man alone, whereas the corresponding affections of the lower animals that simulate these are in fact quite another thing. Now it is the business of the sagacious philosopher to bring clearly to light the profound and essential difference that exists between these two sets of feelings, and not let himself be deluded by their apparent phenomenal resemblance. The eight feelings peculiar to man, according to the same author, are *veneration*, *hope*, *supernaturality*, *justice* (from all of which he derives the notion of religion and morality), *perseverance*, *wit* or humour, *ideality* and *imitation*. But, apart from the fact that these feelings are not the only ones peculiar to man, they are very far from being primitive feelings. They are, for the most part, results—products and effects—of several primitive faculties combined. Thus the humorous and witty man owes his wit to a certain temperament and to a certain measure of various faculties. We may add that some of the feelings in question are manifestly common to man with the lower animals: such, for example, is the instinct of *imitation*,* which manifests itself in the ape more than in any other creature.

We find the same imperfection in the classification of the intellective faculties, which Spurzheim divides into three orders, 1.° the *functions of the external senses*; 2.° the *perceptive faculties*; 3.° the *reflective faculties*. Now the first two do not belong to the intelligence, but to the corporeal sensitivity, which is something quite different. He divides the perceptive faculties into two groups, in the first of which he places those which relate to the *perception of indi-*

* That the instinct of imitation belongs to animality we have shown in the *Anthropology*, nos. 487-490.

viduals, in the second, those which regard the *perception of the relations of objects*, and their phenomena. He places, therefore, in the first group the faculties of *individuality*, *configuration*, *extension*, *weight* and *colour*. But these things, separated from one another, belong to abstraction, and not to perception, which always refers to the object as furnished with all its perceptible properties, according to the nature of the different perceptions. In the second group he places the faculties of *place*, *number*, *order*, *phenomena*, *time*, *melody* and *artificial language*, which, so far from belonging to mere perception, are, like the others, so many functions of abstraction and reasoning, effects of several primitive as well as secondary faculties which coöperate in their production. For example, the faculty of language, far from being a primitive faculty, is an extraordinarily complex effect of nearly all the human faculties, not only of those of the external senses and of animal instinct, but also of those of judgment, reasoning, &c. The third order of the intellective faculties, that of reflection, is divided by Spurzheim simply into the faculties of *comparison* and *causality*. Any philosopher, who has meditated ever so little on the human spirit, will easily recognise the insufficiency of such a classification. Besides, there does not exist any primitive faculty of causality, but only an ontological law which the intellect, when searching for the cause of all contingent things, obeys.

998. We must, therefore, conclude,

1.° That the brain is an aggregate of various organs, but an aggregate harmonically united into a single *continuum;*

2.° That each of these has special functions, but only in the order of sensitivity;

3.° That in man there corresponds to the different functions of corporeal sensitivity and to their different developments, a different development of intelligence, which receives from the sensitivity the matter of its operations; but that nothing of all this takes place in the lower animals, which have not been gifted with any intelligence, but only

with a sensitivity which by its instinctive effects simulates intelligence;

4.° That the various functions of the corporeal sensitivity corresponding to the different organs of the brain are primitive and immediate functions, *e.g.*, those of sight, hearing, taste, &c.; and that these are succeeded by corresponding active faculties, as, for example, the function of hearing by that of vocal sounds (not by that of language, which belongs to intelligence). The careful enumeration of these primitive and immediate functions of the corporeal sensitivity in their relation to the organs of the brain, is precisely the task of the phrenologist. This task has hardly yet been begun. The propositions which thus far have been demonstrated by accurate observation are very few indeed. To point to one which seems to be reduced to great probability, I will cite that laid down by Gall—"The cerebellum is the organ of physical love." Physical love, in fact, is a primitive function of corporeal sensitivity.

5.° Nor is this all: when we say that an organ presides over a function or branch of corporeal sensitivity, we must be on our guard not to believe that it alone is sufficient to produce the corresponding sensions. Indeed, if it be separated from the other organs, the effect no longer takes place. The phrenologist, therefore, by multiplying observations and most careful experiments, must further clearly show the connexion each organ must have with the others in order that it may produce its effect, and, more generally, he must show, not so much what is the organ of a given function of sensitivity, as "what is the apparatus of organs that is ordained to produce it." Moreover, after he has shown what is the special organ of each function, and what is the apparatus of organs coöperating to produce the effect, he must finally inquire, "what is the connection of each apparatus with the whole nervous system and with the entire structure of the animal." Here is, indeed, a wide field for study, a field cultivated, it is true, by modern physiologists, but yet a field in which they may still gather new and abundant fruits of solid knowledge.

ARTICLE IV.

Ideological Sensitivity.

999. The third kind of sensitivity is the ideological. We are conscious that we intuite ideas. Now we could not be conscious of this intuition if we did not feel that we are the intuiting subjects. We have, therefore, a feeling of ourselves as intuiting. It may seem that this mode of feeling blends with the *psychical sensitivity;* and, in fact, it may be regarded as a branch of this. In both sensitivities the soul feels as principle; but while in that which we have called *psychical* it feels in the *extended term*, in the ideological it feels in the *idea.* The two terms of the soul are the extended and the idea, and the principle feels in the term. Inasmuch, therefore, as the terms are two, the identical principle has a twofold feeling. Here we must observe, that the feeling which the soul has in so far as it terminates in the idea is an objectivated feeling, so that the soul, though a subject, feels itself objectively, losing as it were its own individuality in pure intuition. Herein lies the mysterious point of conjunction between the subjective and the objective, between sense and intellect, of which we hope to treat more at length in the *Theosophy.*

Nevertheless, the idea itself is not the proper term of the ideological sensitivity, since it is only the term of *intuition.* The difference between the proper term of feeling, and that of intuition, is a capital one. The proper term of feeling must be something belonging to the sentient; the term of intuition is something intuited as different from the sentient, something that is purely in itself. Now the soul that sees the idea feels itself in ideal being, and this is the special ideological sensitivity of which we are speaking. The soul, by feeling itself in possession of the idea, feels itself intelligent, ennobled, and takes an *intellectual* and *rational* instinct, which is the active part of the ideological sensitivity.

ARTICLE V.

Theoretic Sensitivity.

1000. Finally, we have given the name of *theoretic* to that sensitivity which God produces in the soul when He makes Himself an object of its perception.

1001. God does not communicate Himself to any power but that of intellect, this power being defined generally as "the power of the vision of being." This alone has an infinite capacity, because being is infinite.* We have seen that being is one, but exists in three forms. Hence if the power of intellect is viewed in relation to being, it too is one; but if viewed in relation to the forms, it likewise wears three forms: it appears as three powers.

Under its ideal form, intuited being is the light of the soul, and to this alone is related the intellect natural to man, which we often call intellect simply.

Under its real form, contingent being is limited: it is not infinite ideal being realized. Now, when separated from ideal being, which is light, it remains dark, and is no longer the object of any intellective power. But when united to the light, to ideal being, the real also is cognizable, and becomes the object of the special power called *reason*. And it is exactly because the contingent real is not cognizable in itself, but requires to have ideal being applied to it by the act of an intelligent subject, that the apprehension of real being is attributed, not precisely to the intellect, but to the reason.

1002. On the other hand, if infinite ideal being manifests itself as realized, then the intellect apprehends the same infinite being also as real, indivisible by its nature

* *Quod vero dicitur quod in creatura potest esse potentia passiva infinita, non habet calumniam. Ut enim jam supra dictum est, potentia importat respectum ad possibile, una potentia passiva creaturæ dicitur infinita secundum quod ad infinita se habet sicut potentia materiæ primæ se habet ad infinitas formas et figuras, et continuum est divisibile in infinitum: et similiter intellectus possibilis se habet ad infinitas species intelligibiles, nec propter hoc sequitur quod aliquid creatum sit infinitum simpliciter, sed infinitum in potentia tantum* (St. Thomas, Opusc. viii, q. 81). Here the word *passive* is used in the sense of receptive, according to the custom of the Schoolmen.

from the ideal. There is then the perception of God, which cannot be attained by nature (as some Platonists, both ancient and modern, have dreamt and asserted). Now the intellect considered with respect to the perception of God's own reality, is an intellectual-supernatural sense.

1003. It may be asked: How, with respect to God, can the two conditions of sense be fulfilled, namely, that the agent shall change and that the soul also shall be modified?

I reply: God is not mutable: in Himself He is in no way affected by the soul to whom He communicates Himself. Nevertheless we must bear in mind that the soul does not comprehend God totally: hence God, in Himself illimitable and incomprehensible, is one thing, and that measure or qualitative degree in which His reality is communicated to the soul, is another. This qualitative degree is determined by the soul itself and formed by its limitation, which, again, comes from the limited measure in which God communicates Himself. Hence we may say that God, in so far as He is limitedly perceived by the soul, is limited by the soul which receives Him. Whatever measure or limit there happens to be, it does not belong to God Himself, but to the relation of connection between Him and the soul, the relation whereby He makes Himself the proximate and immediate object of perception.

1004. As to the modification which the soul undergoes when the Divine Reality is communicated to it, this arises from the action of that Reality in the soul, an action from which other marvellous effects follow. The reason is, that the object of the intellect is the natural aim of the rational affection belonging to human nature and of the primitive volition which tends to universal good. Hence, when the affection and the will find so great an object, they must, as a matter of course, be strengthened, elevated, endowed with a new nature, and the soul must receive a new power as different from all others as God is different from all other objects, that is, infinitely. This is what theologians call the *light of grace* and the *light of glory*. The truth is, that, since every specifically different term arouses a new power,

it follows that a transcendently new power must be aroused by that object which differs from all others not only in species, genus and category, but even in being. The human intellect, therefore, in perceiving the substance of God, retains indeed its old root, but receives a new activity differing more from that which it had previously than any one natural power differs from any other.

1005. And here it is not so difficult to explain how the soul may receive in itself the action of the divine essence, as it is to explain how the divine essence can act in the soul. But it will suffice for us to say generally that God acts in His creatures in that manner in which creatures are in Him; for it is written: "In Him we live and move and have our being." Hence in order to act in His creatures He has no need to go outside Himself with His action. There is no reason why that action which in God is the divine essence, could not, outside of God, produce a limited effect. Inasmuch as contingent natures have an existence relative to themselves, God does not, either in creating them or acting in them, take away their subjectivity and individuality; on the contrary, He forms them. Now that act which does not destroy subjects and individuals, but which, after creating them, gives them what it wills, need not be limited in itself as it is limited in the term correlated with it.

This, however, is a question belonging to Theology, and if God will, we shall have occasion to deal with it in the *Theosophy*.

Now that we have spoken of the sense of the soul as a passive power, we must speak of it as an active one, that is, as *instinct;* but it will be better in order to avoid repetition to leave this treatment for the book in which we mean to expound the laws governing the activity of the soul.

Rather we will recapitulate the ramifications of sense, presenting them to the reader in the following table:

SENSITIVITY.

Sensitivity, in so far as it is an universal power, is merely the soul itself, sensible by its own essence, considered as the principle of its accidental acts. Hence the sensitivity of the soul is mixed up and goes along with all its other powers, faculties, functions, and operations, and therefore its development is fully as extensive as the development of all the other powers taken together. Now the soul is a substantial feeling, having a principle and a term. If the feeling is viewed in the *principle*, which is the soul itself, it is called PSYCHICAL SENSITIVITY, or universal sensitivity, and is uniform, because the principle is always the same; but it acquires different relations to its terms in so far as they inform it. If, on the other hand, we consider the felt *terms*, we find various kinds of sensitivity. It remains for us, therefore, to unfold, in this table, *sensitivity* in relation to its *special terms*. They give rise to four conceivable modes or species of activity, which are as follows:

SPECIAL SENSITIVITY.

I.

CORPOREAL SENSITIVITY, having as its term

A. The *felt extended*.
B. The *internal motion* of the felt extended.
C. The *organism* of the felt extended harmonically perpetuating the internal motion.

This faculty contains something immanent, and is *the first part of the fundamental feeling*, which is limited but not figured; and it has transient acts, which are so many MODIFICATIONS OF THE CORPOREAL FUNDAMENTAL FEELING.

The faculty of the modifications of the corporeal fundamental feeling has two functions:

I. To have *sensions*.

II. To retain the *traces* of past sensions (here begins habit, and with it animal instinct). These two functions are exercised in reference to various kinds of sensions, constituting as many faculties. These sensions are:

(*a*) *Figured Sensions*.

1.° On the surface of the body—*Faculty of External Sensitivity or Touch*—embracing (α) *Touch proper*, (β) *Taste*, (γ) *Smell*, (δ) *Sight*, (ε) *Hearing*, (ζ) other particular modes of feeling.

2.° Within the body—FACULTY OF INTERNAL SENSITIVITY OR IMAGINATION.

(*b*) *Non-figured Sensions*, or feelings of various kinds.

(*c*) *Physical Affections*, the effects which several simultaneous sensions fused together produce in the unity of the soul. In this fusion lies the cradle of the *passions*, which will be specified in the Synoptical Table of Instinct.

II.

PNEUMATIC SENSITIVITY, having for its terms Spiritual Entities.

A. The souls of others (through the vehicle of their bodies).
B. Separated Intelligences (through the vehicle of our own bodies).

III.

IDEOLOGIC SENSITIVITY.

Constituting the *second part of the fundamental feeling*, which has, for its foreign term, the *idea*, and, for its own term, the light which the human soul receives from it, and which constitutes its form (the idea informing the subject).

IV.

THEORETIC SENSITIVITY, having as its term God Himself (the supernatural).

CHAPTER VII.

ON THE PRIMITIVE POWER OF *INTELLECT.*

1006. The intellect in general is the power of the vision of being as being, or, which is the same thing, of the vision of the essence of being.

To no created intellect is it natural to apprehend the essence of being under its real form. All apprehend it under its ideal form. Being in its threefold form is known naturally only to itself.

Of the human intellect, in so far as it is informed by ideal being, enough has been said in the *Ideology*.

In so far as the intellect receives being in its real form, it has become a supernatural power, of which the *Supernatural Anthropology* treats.

1007. If, however, we bear in mind that in the intellect to which being is communicated also under its real form there must be that perfect harmony and that mutual agreement between the ideal and the real which constitute moral being, which stands to the two others in the relation of complement, perfection, good; then there arises a third aspect in which the human, as well as every other intellect may be viewed; of which the complete treatment belongs to *Agathology*.

1008. Here we will touch upon an important question.

We have somewhere said that there would be no absurdity in conceiving a subject purely intellective, *i.e.*, without any affective or volitive power. This is true if we consider the matter from the side of the subject. But if we look at it from the side of the object, we shall have to come to the opposite conclusion. Indeed, being has this essential characteristic, that it is good, and hence it cannot be known except as good. Now the knowledge of it as *good* implies

an affection, an inclination toward it. Just, then, as being, in its character of *light*, creates the intellect, as formal cause of the human soul (or, perhaps more correctly, as cause of the formal cause, cause of the illumination of the soul), so the same being, in its essential character of *good*, creates the primitive will, as the final cause which actuates the first affection, the first volition, directed to universal being.

And as the intellect is the receptive power, so the will is the active power which corresponds to it.

1009. Now, since the intellect has, as its essential object, ideal being, which is in itself immutable, it is not susceptible of any development, and has the nature of an *immanent act* rather than of a *power*. It may, however, be perfected, increased, elevated by the supernatural order, in the way which we have mentioned, that is, when essential being in its reality is revealed to it.

1010. It is true that ideal being is also intuited as variously determined and limited; for which reason the Schoolmen attributed to the intellect the intuition of these ideas, and so gave it a development. And so long as no confusion is allowed to enter into the matter, there is no reason why the word *intellect* should not be used generally to signify "the power of intuiting ideas." If, however, we consider that the determination and limitation of ideal being cannot be attained without the perception of contingent realities and the vestiges of that perception which remain in the soul, we shall see that it is more accurate to attribute to the reason even the intuition of determinate ideas, inasmuch as this intuition is not simple, but includes the application of ideal being to realities, which is the work of the reason.

1011. In the same way it may be said that the primitive and universal will has not the nature of a power, but of an immanent act, which is the principle and basis of power. Hence it seems to us preferable to call it, instead of primitive will, primitive volition. For these reasons we do not subjoin here the synoptical table of the power of intellect.

CHAPTER VIII.

ON THE RESULTANT POWER OF *REASON.*

1012. The power called *Reason* arises in the soul, the common principle of sense and intellect, as a consequence of the felt and the understood. The one common principle unites them by a *perceptive union*, *i.e.*, that whereby it apprehends the real in the ideal, as in its essence.

Hence it follows that the power of reason, rather than subjective, is the subject itself in action, so, however, that the idea prescribes the law to it.

1013. It follows, moreover, that, in the logical order, reason is a power posterior to those of sense and intellect, but not in the chronological order, because as soon as man is *reason* is; which is proved thus:

Man is a single subject, composed of an intellective soul and an animal body. But the union of the intellective soul with the animal body takes place by means of a first and immanent perception (254-266). Now, the first and immanent perception is the *first act* of the reason, the act whereby the reason exists. Hence the existence of man and the existence of reason are contemporaneous. But if reason exists as soon as man exists, and if, before man exists, there exists neither the corporeal sense nor intellect, it follows that these primitive faculties are not chronologically anterior in man to the existence of reason, although reason results from them in the same way as a consequence flows from its principle.

It is true that sense or, to speak more correctly, the animal, may exist before man, but it is exactly on that account that we speak of sense and intelligence in so far only as they are proper to man.

1014. How priority in the logical order is possible without necessarily involving a priority of time, is a question that deserves the study of the philosopher. We have many examples of the fact. To adduce one of those most worthy of attention, we will name that of the syllogism, in which the union of the first two terms, *i.e.*, the consequence, is not, in the human mind, posterior to these as to time, although it results from them. Indeed, so long as the mind does not see the relation of the said two terms, there is no syllogism; the first term cannot be called first, nor the second, second; there is neither major or minor premise; but, as soon as it has discovered the relation, it has also found that one notion is a first term and another a second, and thus it has found the major and the minor. To descend to a particular case, the same thing is true in the perception of bodies, which, though it appears to take place by a kind of reasoning, is, nevertheless, immediate,* because it forms its own object.†

1015. From this important truth, that "in one and the same being there are elements standing to each other in a relation of priority and posteriority, without any priority or posteriority in time," we derive this most beautiful ontological principle, that "in the bosom of being there is a continuous, immanent action." By means of this principle we may reform and correct the vulgar concept of being. I say the *vulgar concept*, for the generality of men, taking their notion of being from matter, are wont to conceive it as something motionless and dead, not being able to imagine any other action than that of local movement and transient act.

1016. Now, we are not speaking here of an action which passes away, which takes place by parts, although one part is past and another is to come. There is in the bosom of the being an action which goes on continually, and whereby the being itself is made both to be and to endure. Hence, if the action were not complete the being would not be, and if it were not continuous, the being

* *Philosophical System*, nos. 89-93. † *New Essay*, vol. i, 121-129.

would not be permanent. Nevertheless, that action has in itself an order of its own, an order analogous to that of the succession of things in time and to which, with the Schoolmen, we might apply the term *ævum*.

1017. From this fact must be derived also the explanation of memory, which assumes that what in itself is successive becomes simultaneous, inasmuch as the whole succession in which it stood in time remains present. Now the memory is a faculty of the reason, because there could be no recollection unless some feeling marked the particular successive entities in ideal being. But we shall have to return to the subject of memory later on, when we come to speak of the unity of man and of the manner in which his manifold activities spring from that unity (1161-1167).

1018. The end, therefore, to which the power of reason is directed is to place intelligent beings in communication with the reality of things.

Indeed, man, as merely intelligent, communicates, naturally, only with ideality, which constitutes the light of the intelligence. Now reality is either infinite and necessary, or finite and contingent. In pure ideality no reality is contained, either infinite or finite: hence man, in so far as he intuites pure ideality, does not naturally communicate with any reality. Reality, therefore, not being essential to the human intelligence, has to be given to it. But how can it be given? The infinite reality, God, can come to it only through a gracious communication of God Himself, and when given, it is intelligible through itself, since it is the very essence of ideal-real being. Hence, in order to be understood, it has no need of any other power than the intellect which intuites ideality; only that, in this case, the intellect becomes perfected, elevated, because gifted with the perception of the Absolute Reality.

Finite and contingent realities are not intelligible through themselves, because they are not the essence of being. In order, therefore, that they may be communicated to man's intelligence, his intelligence itself must render them intelligible. Now, by this operation which the in-

telligence performs, there is constituted a new power, different from intellect, and called *reason*.

1019. Indeed, it is one thing to intuite what is intelligible *in se*, another to render intelligible what is not so. These are two acts specifically different by reason of the specific difference of their formal objects. Now, powers are distinguished (937-957) according to the distinction of acts and formal terms. Therefore, reason is a power different from intellect.

1020. How contingent reality, which is not the essence of being, can be rendered intelligible, we have shown elsewhere. But here we may say briefly,

1.° That the first condition necessary for rendering contingent reality intelligible is, that this reality should be accessible to the intellective being;

2.° The second is, that the intellective being should unite to reality ideality, that is essence, thereby constituting a being, an object of the understanding.

But when and how can contingent reality become accessible to the intellective being? The reality accessible to the intellective being is no other than its own reality, since this being is a real. That the reality of the intellective being cannot but be accessible to it is clear, for the reason that the reality is not far from the being but is the being itself: and this reality is not dead, but living, because it is feeling. Hence, to say that a being intuites ideal being is the same as to say that a feeling is united to ideal being. The feeling, therefore, and ideal being are united by nature and constitute together a single intelligent. But ideal being is the very intelligibility of all things. Consequently, the feeling is rendered intelligible by its intimate union, founded in nature, with intelligibility, a union of such a kind that from the feeling and said intelligibility there results a single being, which is called intellective.

1021. Here we must make several observations:

In the first place, I have said that the reality of the intellective being is a feeling. Let it not be supposed from this that, consequently, the intellective being can perceive

no other reality than its own. For, although it is true that its intellective perception does not extend beyond its own feeling, still it must evidently embrace all the modifications of this feeling. Moreover, the reader must bear in mind the ontological observations we have frequently made to the effect that the action of one being manifests itself in another, without confounding itself with the action of the being in which it is manifested. Hence arises the distinction between the two concepts, of activity and passivity. Whenever it happens, therefore, that the action of another being manifests itself in our feeling, we must, in perceiving that action, perceive the other being also, and this precisely for the reason that we perceive our own feeling and whatever takes place in it. It would be no objection to say that perceiving the action of a being is not perceiving the being itself; because, by the immutable law of intellective perception, it is impossible to perceive the actions of beings without conceiving the beings to which they belong. Nay, properly speaking, "nothing else is ever conceived or understood but being and what takes place in being," since being alone is the object of intelligence. And it is for this very reason that contingent realities are not in themselves intelligible, viz., because they are not beings, but actions, or to speak more correctly, terms of the actions of another being. So much is this the case, that even our own substantial feeling is not a being *per se*, but, properly speaking, only the term of the action of a being that remains hidden from us. Hence, in order to understand this feeling of ours, as well as all the contingent realities that fall within it, we must add being to them by an act of our intelligence: thus it is that we complete them and render them intelligible. In like manner, the actions which beings different from ourselves exercise in us are understood by us only when we add being to them, that is, unite them to a being whose actions they are.

1022. In the second place, we are able, by means of the same principle, to see the origin of that authority which the depositions of consciousness have with all men. Conscious-

ness is not, indeed, the first intellective perception of man's feeling; but it is a reflection he makes upon that perception, as well as upon his other reflections. Now, if, by his first and natural perception, man knows his own animality, by the perception of that perception, or rather by the perception of the percipient—which is his first reflection—he renders himself intelligible to himself as intelligent, and so forms the *Ego* in the manner which we have described (64-68). But if the first perception were not natural, and if it were not the foundation of all the other perceptions which man successively acquires of himself as modified, the depositions of consciousness would not have that authority which they have. All men, indeed, are persuaded that these depositions are infallible and evident; and this persuasion is due to the circumstance that the first conjunction of feeling and idea is a fact of nature itself, in which fact man perceives habitually his own feeling. Now perception never doubts with regard to itself; indeed the persuasion which it inspires is its natural completion. Such is the testimony of consciousness, which is always a perception of perception.

1023. In the third place, we can now readily explain the origin and nature of *reflection*. It plainly has its origin in the activity of the *rational subject*. Now we have seen how the rational subject is posited *in esse*. It is so posited by the *fundamental intellective perception*, whereby the intelligent being is individually united to animal feeling, thus constituting man. Were it not for this, the rational subject or principle would not exist. But when it does exist, it has an activity of its own, independent, as to its mode, of its term; for, as we have seen, the activity of every principle, though it exists by means of its term, acts in its own way, and this way we must learn from observation (742, 743, 929). Now the activity of the rational principle may be called generally *attention*, although this word is not ordinarily used in so general a meaning, being usually employed to signify the free, or elective, intellectual activity of which we are wont to be cognisant, and which is applied to and

concentrated upon a determinate object. But, considering that the intellective virtue which freely applies itself to any object selected from others does not differ from that which is instinctively applied to the first object presented to the spirit, we believe we are justified in taking the term *intellectual attention* to mean generally that force of the spirit which is applied, even without any special concentration, nay, even instinctively, to any object whatever.

1024. In this sense, the very intuition of being becomes a first act of attention, and an act of attention is included also in perception. But subsequently attention goes on to direct and concentrate itself according to various laws, sometimes according to instinct guided by wants, sometimes by spontaneous choice, and sometimes also by free choice between different objects present to the spirit. Indeed, this is the speciality of the rational principle, that it is able to concentrate itself upon several objects together, or upon one, or even upon a part of one, at the same time withdrawing itself partly or entirely from the rest. Be it remembered, then, that this is the special law of the rational principle or subject, to *concentrate* itself on any object, or any part of any object among those that are present to the spirit.

How, then, does it happen that the human spirit can reflect upon its own operations?

If we grant that all the operations, both active and passive, of the spirit are feeling, and that every feeling of man is the object of a natural perception, we see at once how reflection comes about; since, as we have already said, reflection is only a perception of perceptions and of the acts previous to it, all of which perceptions and acts, are feeling, and, therefore, capable of being perceived.

1025. If we can in this way explain how man is able to reflect upon the acts of his own spirit, we can still more easily explain how he is able to reflect upon the objects of these acts; since these objects are united to the perceptions and constitute their terms, of which the acts are the principles. The term, therefore, as well as the principle, pre-

sent in all intellective acts, is perceptible, and the spirit can, by the *power of concentration*, apply its attention exclusively either to the one or the other, to the principle or to the term.*

1026. In the fourth place, we are also in a position to explain how the rational principle can act upon reality and upon matter itself; for, as we have seen, the rational principle is itself a real, that is, a principle of feeling, which renders itself intelligible through its natural union with ideal being, the intelligibility of all things, and, in perceiving itself, perceives the other reals that make their actions felt by it. Now, this real being, or the substantial feeling, has an active principle, whereby it can modify itself and also react upon that which acts in it. But if it perceives, and hence knows, itself and its own different states, it learns also, through this its condition, to know how it must move and use its own activity in order to succeed in modifying itself and the other things connected with it. If, therefore, the rational principle knows how it must act, and is, at the same time, itself the operative force, it is plain that the same rational principle will, at pleasure, be active on itself and on the reals which form a continuation of it in virtue of the action which they exercise upon it and it upon them.

1027. Thus far we have spoken of the origin and nature of *perception* and *reflection*, which are the two faculties of the reason. It will not be amiss here to add a brief analysis of both.

Perception has three stages, which we shall call *apprehension*, *affirmation* and *persuasion*.

1028. In the (intellective) apprehension of reality, affirmation and persuasion are virtually contained, and at this first stage the fundamental perception of our animality stops. Indeed, man in the first moments of his

* It is in reflection that Philosophy has its origin. Hence it is no wonder, if Maine de Biran tried to derive the classification of the powers from reflection alone, because, in fact, the *Philosophical distinction* of the powers is the work of reflection. It must, however, be remembered that reflection works upon data antecedent to it.

existence does not expressly affirm his own animality, but only long afterwards, when he begins to use some language. In this way we reconcile with the theory of fundamental perception the other opinion expressed by us, that man first perceives external things and long afterwards himself and his belongings. This opinion had reference to *express affirmation*, which is the second stage of perception, that which completes it and brings with it *distinct persuasion*.

1029. We must also say that affirmation alone forms the sinew, so to speak, of the mind, although this is found in apprehension in a kind of implicit and virtual manner.

1030. Persuasion, on the other hand, is, rather than an act, a habit of the human spirit, and it is only distinct and actual when it is produced by affirmation. Then it is the affirmation itself remaining in the spirit as a habit.

1031. Perception is followed by the faculty of *universalization* or of *full specific ideas*, of which we think we have said enough in the *New Essay*.*

1032. Coming now to reflection, we have already laid down the principle according to which the analysis of it is to be made. This principle is, that the human spirit has the power to direct its attention to the objects perceived, to restrict it to a few, or to extend it to many or to all, or also to a part of any of them, even when that part is not really separable, and to concentrate it, so to speak, on a single point, thereby increasing its intensity.

* Vol. ii, 487-504. I do not remember to have ever seen in the writings of any philosopher an accurate account of *universalization*. The following passage from Leibnitz shows that this great man, in meditating upon the imposition of names, observed that common qualities might consist in the most trifling accidents; thus indirectly recognising that, in order to arrive at the *common* or *universal*, it was not necessary to abstract the accidents or anything else from the thing, but merely to prescind from individual subsistence. His words are these: "General terms are not only conducive to the perfection of languages, but also necessary to their essential constitution. For, if by particular things we mean individual things, it would be impossible to speak, if we had only *proper* names and no *appellatives*, that is, if we had only names of individuals. Every moment new individuals, accidents and actions present themselves, and it is just these that are mostly designated by a name. But if by particular things we mean the *lowest species (species infimas)*, then, to say nothing of the difficulty which is very often found in determining them, it is manifest that they are already universals based upon resemblances." (*Nouveaux Essais sur l'intendement humain*, Bk. III, cp. i, no. 3.)

Before proceeding to the analysis in question, however, we must remember that reflection, being always a perception of perception, is bound by the law that it must compare the object upon which it reflects, with universal being,* from which it derives its transcendental principles. Hence it follows that the faculty of reflection never acts by way of simple reflection. If it did, it would not increase the objects of knowledge; it would only see them, look at them, a second time. Now mere looking at things a second time is not what in philosophic phrase is called *reflecting*, it is simply a fresh actuation of the attention after it has left off its act and become habitual. This new act of attention, therefore, if relating to things habitually known, is not *reflection* but *reminiscence*. And if the same external perception, which was experienced before, were to occur again, this also would not be reflection, but only a *repetition* of the perception. Reflection must, therefore, be carefully distinguished from *memory*, which is the deposit of habitual cognitions; from *reminiscence*, which is the actual advertence to these; and from *repeated perception*. And the main point of the distinction is this, that neither memory, nor reminiscence, nor repeated perception increases the amount of human knowledge, whereas reflection does, and this because, as we have said, in perceiving a perception, it always refers it to and compares it with ideal being, and so discovers its relations, which are then changed into so many principles.

1033. From this it follows that reflection must be distinguished into *partial* and *total*.

I call that reflection *partial* which aims at discovering the relations which separate or unite the objects upon which it is directed, without at the same time tending by its operation to reach the relations of these objects to universal and essential being itself.

I call that reflection *total* which discovers and affirms the relations of its objects to universal and essential being.

* *Philosophical System*, 98-104.

Reflection must always recur to universal, essential, ideal being, otherwise it would not be able to discover anything new; but sometimes it compares its objects with being in order to find out their relations to each other, and then it is called *partial;* sometimes, on the other hand, it compares its objects with being in order to find out their relations to being itself, and then it is called *total.* The reason of this difference of appellation does not lie in the *means* of knowing, because reflection always uses the same means, viz., ideal being, but in the difference of result, which is partial if it stops at the relations of partial objects to each other, and total if it ends in fixing the relation which being itself, universal being, has to objects that are partial.

1034. The relations of universal being are always universal and, therefore, in a certain way, always embrace the whole of the knowable. On the other hand, the relations of partial objects to each other are always partial, and constitute only a part of the knowable.

1035. From the nature of partial reflection are derived the different orders of reflection; in other words, is derived the ground which explains how I, after having reflected on a perception, can reflect upon my reflection, thus performing a second act of reflection, and then, with a third act of reflection, return upon the second, and with a fourth upon the third, drawing out some new knowledge every time I rise to a higher order of reflection. Now, that the possibility of these different orders of reflection proceeds from the fact of their being each of them partial, is seen from this that, if by my first reflection I exhausted the knowable, I should be unable to learn anything new with the second and following ones, and should be obliged to limit myself to repeating the act of the first.

1036. The extreme importance of the study of these diverse orders of reflection can be appreciated only by those who have come to understand that it supplies the supreme principle of method,* as well as the principle that

* See *Preface to Catechism.*

must govern a philosophical history of the sciences, the principle of a history of humanity, and infinite other consequences of the highest moment in the moral and political government of men.

1037. But in that reflection which we have called total the manifold orders cease, because when it arrives at the highest and most complex truths, the path to new discoveries is closed. Thus, if I have succeeded in intuiting with my mind some supreme principle, I may, indeed, by reflection, discover the applications of it, which is a falling back into partial reflection; but I cannot rise higher with total reflection, for which nothing remains but to repeat the act whereby it contemplates the principle already found; and this is *contemplation*.

1038. But whatever the order of reflection may be, the ways in which it acts are always the same. And since its function is to discover *relations*, and these are either such as separate things from one another, *e.g.*, differences, oppositions, &c., or such as unite or link things together, *e.g.*, equalities, resemblances, correlations, analogies, &c., it follows that the two modes in which partial reflection primarily acts are *synthesis* and *analysis*.

1039. Analysis divides, synthesis unites; but in both cases the objects must be already known. Sometimes, however, partial reflection not only finds the relation between known objects, but also produces by its own activity one of the terms of the relation. This it always does by the use and application of the idea of being; but it does so in two different ways, viz., by deducing the term, or by feigning it. To these two modes we give the names of *rational faith* and *rational creation*.

Thus analysis, synthesis, rational faith, and rational creation, are the four modes in which reflection acts. We will say a few words on each of them.

1040. Analysis, which breaks up and divides known objects, is either *material* or *formal*.

We give the name of *material* to that analysis whereby the parts of the object divided are all of the same nature

and logical condition; this metaphor being taken from the division of which matter, supposed uniform, but consisting of parts not differing in nature but only in size, is susceptible. Such are chemical analysis, numerical division, &c.

On the other hand, we give the name *formal* to that analysis in which the parts of the object divided by the mind differ in nature, as, for example, when one divides a genus into several species, in which case the genus has a logical nature different from that of the species, and each species a nature differing from that of the others. Hence it is seen that the faculty of abstraction belongs to formal analysis.

1041. Synthesis receives a similar classification. It may, likewise, be material or formal, according as parts of the same nature are united, as in arithmetical addition and multiplication, or in a whole formed by mere juxtaposition; or parts differing in nature, as in the case of judgment, in which the mind unites the predicate to the subject.

1042. The subject of material analysis and synthesis, therefore, is quantity; the subject of formal analysis and synthesis is quality, modality, or relation.

1043. But with regard to formal synthesis, which always takes the form of a judgment, we must observe that it is modified in no small degree according as the orders of reflection increase. Indeed, if, after having formed several judgments by a synthesis belonging to the first order of reflection, I rise to another synthesis belonging to a higher order, finding the *nexus* between the two judgments, I find myself at once in possession of the syllogism. In this form, as everyone can see, reflection is productive of a new cognition, since the judgments which I unite are two, whereas the syllogism which results has three. This means that by reflection I have gained one judgment more, which is the conclusion of the syllogism itself. It is obvious, that if by new syntheses I rise still higher to other orders of reflection, I may compare even syllogisms with judgments

or with one another, and draw from them other conclusions. This produces *reasoning*.

1044. But here we must not omit to make one observation, which is this, that in every analysis there is always some kind of synthesis, because, in order to find the differences and oppositions, whereby we separate one thing from another, we must first confront and compare the things which we afterwards distinguish and separate; and confronting is a kind, a first degree, of synthesis. Hence it is that the distinction between analysis and synthesis lies rather in the *result of reflection* than in the act itself of reflecting, whose proper form is always synthetic.

1045. This is the reason why we have placed judgment and reasoning in the class of syntheses rather than in that of analyses, although as a matter of fact the result is not always synthetic, but sometimes analytic. Indeed, when the judgments are negative, or when the conclusion of the syllogism is negative, the *result* is wont to be analytic and divisive, but the *form* is always synthetic. This will be particularly clear to those who know that the human mind conceives even what is negative under a positive form—nought as something—and that negation, in so far as its form is concerned, is affirmation. Hence, when we wish to separate and distinguish, the negative predicate forms a synthesis with the subject; and it is this law of thought that has led algebraists to sum both positive and negative quantities by the same kind of operation, which they have called addition, that is, union or synthesis.

1046. But let us pass on to those acts of reflection, in which this faculty discovers, or feigns one of the terms of its analysis or synthesis. These acts, as we have said, are two—*rational faith* and *rational creation*.

When the human mind reflects upon an object perceived by confronting it with the essence of being, and through this process finds that the existence of this object depends necessarily on another being which it has never perceived, so that it would be a contradiction of the idea of being to say that the object perceived as existent exists alone; then

there springs up in it rational faith, that is, a reasonable persuasion that that other term exists, although it has never perceived it, and does not know in the smallest degree the mode of its being. This is the function which we have called *integration*.

For example, Leibnitz, confronting created real beings with the essence of being, found that the *law of continuity* lies in the order of being itself. Then he saw that in the chain of natural things known in his time a link was wanting. He believed in the existence of this still unknown link, and thus predicted the discovery of *zoophytes*, which afterwards took place.

Recently also, Leverrier discovered in a similar manner, I might almost say *a priori*, the existence of his planet, which he saw, as Arago has cleverly said, not with the lens of his telescope, but with the point of his pen. From the comparison of real being with the essence of being, the two principles of *causation* and of *analogy* had already come to be known. These produced the discovery in question. Leverrier argued with himself, that certain irregularities in the movements of known planets must have a cause, in virtue of the principle of causation. He observed, that the irregularities and perturbations were explained by the mutual attraction of such heavenly bodies. He, therefore, concluded that the irregularities which remained without any apparent cause must by analogy be due to the attraction of an unknown planet. He applied mathematics in order to find its position, and mathematics gave it. The planet was discovered in the place indicated.

A similar process of reasoning leads from contingent being which is perceived, to necessary being which is not. It involves contradiction to think that the first exists alone, without the second. This is equivalent to making the following syllogism:

"The contingent exists or is a being; but
Being is never merely contingent;
Therefore, that the contingent may be a being, as it is, the necessary must exist."

In this way the whole human race ascends by a spontaneous integration to a rational belief in the existence of the Supreme Being.

1047. Even positive faith in things divine reduces itself to rational faith, that is, if we pre-suppose rational faith in the existence of God. In this case the reasoning made is as follows:

"If this man were not sent by God to announce the truth, he would not do things which imply the intervention of God; but,

"This miraculous man exists and announces these divine things. Therefore, these divine things are true, because their truth is a necessary condition of the existence and preaching of this man." Or more briefly: "The truth of the divine things which this man proclaims is the reason necessary for the explanation of how and why he performs the works that he does." No one has seen the things which this man announces; but they must be believed on the strength of that form of reasoning which we have called *integration*, in other words, because that which is perceived could not be if that which this man announces and which is not perceived, were not also.

By an argument of the same nature a blind man believes in the existence of colours. "These colours," he says, "which I do not perceive, exist, because there is one worthy of faith whom I do perceive. If colours did not exist, this man worthy of faith could not be here speaking to me. But he is; therefore colours exist."

1048. From these examples we learn,

1.° That the argument from integration is founded on the *intrinsic and necessary order of being*, usually expressed in the form of ontological principles—an order which we discover through the natural contemplation of being, and whereby we understand that a given part of being which is would not be as it is, if there were not another which is not perceived.

2.° That the rational faith of which we are speaking relates to entities which we have never perceived, *i.e.*, which

were never communicated to us in their realization, and whose nature, therefore, we do not know by positive knowledge,* since this nature could be given to us only by means of perception or of a similitude to things perceived.†

1049. What, then, shall we say of the faith which we lend to a man who testifies to us the existence of a thing whose essence we have previously seen realized? Does such a belief belong to *rational faith?* For example, if we give credence to the travellers who tell us that they have discovered a new river in the heart of Africa, is this the act which we call rational faith?

In order to answer this, we must observe that human cognitions are divided into two great classes, that which relates to the *essences* of things, and that which relates to their *subsistences*, which are *realizations* of their *essences*. Now, when trustworthy travellers tell us that they have discovered that new river, they do not tell anything new with regard to the *essence of river*, because we

* It will be remembered, that according to the Author, *positive* knowledge is that knowledge by which we know, not only that a certain thing *exists*, but also what is its *nature*.—[TRANSLATORS.]

† The word *faith* (πίστις), meaning *persuasion*, was used in various senses by the Ancients. Parmenides divided human knowledge, or rather, what men reason about, into *truth* [ἀλήθεια] and *opinion* [δόξα]. Now, Karsten, in his *Philosophorum Græcorum veterum, præsertim qui ante Platonem floruerunt, Operum Reliquiæ* (Amsterdam, 1830), holds that Parmenides assigns *faith* [πίστις] to *truth*, and delusion (ἀπάτη) to opinion, in direct opposition to Plato, who assigns faith to *opinion* (*Tim.*, p. 29, *Repub.* vi, p. 511). Hence he finds fault with Proclus for saying that Parmenides distinguishes *faith* from *certain knowledge* (*Com. to Tim.*, p. 105). But it seems to us that *faith* taken, as the Greeks took it, as a synonym for *persuasion*, is something distinct from *knowledge*, but not *contrary* to it; indeed we have several times laboured to distinguish the *faculty of knowing* from the *faculty of being persuaded*. Now, Parmenides, in the fragments which remain to us, speaks of *true faith* (πίστις ἀληθής), which means simply the *persuasion that comes from truth*. In the same way he calls truth *rightly persuasive* (ἀληθείης εὐπειθέος ἀτρεκὲς ἦτορ), from which is distinguished that which is *wrongly persuasive*. He, therefore, distinguishes a good and true persuasion from another persuasion which is wrong and false. Thus Parmenides does not deny that opinion [δόξα] affords a persuasion, a faith, but he denies that it gives a good and veracious one (βροτῶν δόξας τῆς οὐκ ἔνι πίστις ἀληθής). When, therefore, Plato assigns *faith* or *persuasion* to opinions and appearances, and contradistinguishes it from truth (ὃ πρὸς γένεσιν οὐσία, τοῦτο πρὸς πίστιν ἀγήθεια, *Tim.*, p. 29), he does not apply any epithet to persuasion, calls it neither good nor true, as Parmenides does, but speaks of *persuasion* alone, considered in itself, separated from every other element, and, therefore, taken abstractedly from truth. Now, *persuasion* without truth is certainly opposed to *truth*, because it is blind. Therefore the words of Plato are not so contrary as it would seem at first sight to those of Parmenides, but may be reconciled with them.

know already what a river is, having already perceived several with our senses. As to the *essence* of river, therefore, they are not *witnesses*, but simply *reminders* or rousers of our attention, which then at once thinks of a river, that is, of the essence of a thing known to us. As to the *subsistence*, on the other hand, of this river in the heart of Africa, they are true witnesses, and we lend them a *rational faith*. But in this rational faith relating to the *subsistence*, and not to the *essence* of the things narrated, there is no *integration*, because the act of integration is confined to completing the *essence of being*, without regard to subsistence. The examples above adduced, of the discoveries of Leibnitz and Leverrier, relate to subsistence, but the mode of reasoning is the same, and it was to explain this that we have adduced them.

Integration, then, is a species of *rational faith*, though not the only one.

1050. *Rational creation* is quite different from *rational faith*. As faith reasons from the conditioned perceived to its condition, so creation assumes or feigns something whose essence it has previously perceived, but in whose subsistence it does not really believe. This assumption or fiction is made by the activity of the human intelligence for various causes, not always rational. Hence it receives three forms, becoming now the faculty of *hypotheses*, now the faculty of *personifications*, and now the faculty of *error*.

1051. *Hypothesis*, if well made, contains something rational and approaches closely to integration, but with these differences :

1.° In integration there is a term whose essence has not been perceived, whereas what is assumed in an hypothesis is always something whose essence has been perceived ;

2.° In integration the argument induces necessity ; but in hypothesis it is only conjectural ;

3.° In integration the non-perceived term is single and excludes all others, whereas in hypothesis the term which

is assumed to explain the facts does not exclude others, inasmuch as the facts to be explained may usually be explained on several hypotheses.

1052. *Personification* is not a rational act; it has its origin in instinct, and man uses it as, so to speak, a symbol to excite feeling in himself, and not to increase his knowledge.

1053. Finally, *the faculty of error* is an arbitrary affirmation denying the truth, and hence is not in any true sense rational, but stands in a relation of opposition to reason.

1054. It is evident that the activity of the soul in rational creation forms part of that superabundance of activity which the principle (subject, soul) displays after being posited *in esse* by its term, and which does not come precisely from the term itself.

1055. It now remains for us to speak of *total reflection*, that kind of reflection which, as we have seen, searches for the relations of universal being, and does not stop at those of particular beings. Now total reflection embraces a group of four faculties, which we shall call, 1.° The *faculty of principles;* 2.° The *faculty of archetypes;* 3.° The *faculty of method*, and 4.° The *faculty of absolute or transcendental knowledge.*

1056. Principles taken, as we take them, in an absolute sense, are propositions having an universal value, and having no ground superior to themselves: hence, they are the idea of being itself, considered in its application to reasoning, in which it displays its greatest power.*

1057 As being illuminates the mind, so also it directs the human activity: hence it presides over the *theoretic reason* no less than over the *practical reason*, and furnishes the directive principles of both.

1058. If being were not essentially ordered and, so to speak, organized, it could not produce from itself the principles of human reasoning, all of which express its order. Indeed, if we carefully observe the part which

* *New Essay*, vol. ii, 559-569.

principles play in the mind, we see that "every principle merely shows the mind how being must be in order that it may be being." For example, the principle of cognition says: "Thought is not unless it have being for its object;" which means that the entity called thought would not be an entity or, simply, would not be, if it had not being as its object. It, therefore, describes *how this entity must be*, in other words, describes the order of it.

The principle of substance says: "There is no accident without the substance." It, therefore, describes the mode or order which the entity *accident* must have in order that it may be an entity. The principle of causation says: "Every event must have a cause." It, therefore, describes on what condition an event is possible, or what must be the necessary order of the entity signified by the word *event*. And thus we might go on through all principles and show that everyone of them expresses how being must be, in order to be; and this is expressing its intrinsic and necessary order.

1059. Order always supposes a multiplicity unified. Hence we may consider, both unity in multiplicity and multiplicity in unity. From these two aspects we may derive two series of principles belonging to the theoretic reason. The first indicate how unity may be multiplied; the second, how multiplicity may be unified.

1060. To the former class belong, besides the three principles of cognition, substance and causation already enumerated, the principles of individual substance, of subject, of person, and of the absolute; which say respectively: (1) "Being would not be, if there were not substantial individuals;" (2) "Being would not be, if there were not subjects;" (3) "Being would not be, if there were not persons;" (4) "Being would not be, if there were not the absolute." These several principles may also be translated into the following formulæ:

(1) "If there is a multiplicity of beings, there must be substantial individuals;" (2) "If there are substantial indi-

viduals, there must be individual (sentient) subjects;" (3) "If there are subjects, there must be persons;" (4) "If there is a being, there must be absolute being." From this last is derived transcendental and absolute knowledge.

1061. By considering, moreover, the relations in which multiplicity stands to unity, we derive other principles of theoretic reason, for example: "The whole is greater than its part." "Two things that are equal to a third are equal to one another," &c.

1062. And now, merely to touch upon the principles which govern and direct the practical reason, we will say that the practical reason has the two acts of *contemplation* and *action*. Contemplation is governed by the principle of *beauty;* action by that of *moral law.*

1063. The *faculty of archetypes* is that faculty, which, by means of thought, aims at pushing any known essence to its ultimate possible perfection, determining how it ought to be in order to reach that finished state. This is the source of the *Deontological Sciences.** Reflection here does a most noble work, comparing the imperfect forms of the things given to man in perception with *being*, finding how much of the order of being itself their essences are capable of appropriating. This faculty renders intelligences sublime. It was marvellous in Plato, and won him the title of Divine. No man can be great who does not possess it in a high degree, because the magnanimous actions of great men are realized only by copying the lofty ideal which is always vividly present to their minds.

1064. The *faculty of method* springs from reflection by rising above all the particular orders of reflection with the object of arranging them in a becoming order with reference to one another. Hence it is a kind of universal reflection, embracing with one glance all possible reflections, that is, an indefinite number of reflections.

1065. Finally, the *faculty of absolute or transcendental knowledge* is also the fruit of total reflection, arising when, taking as many cognitions as it pleases and comparing

* *Philosophical System*, 151-173.

them with the essence of being, it distinguishes what is subjective and phenomenal in them from what the thing known is in itself independently of what is furnished to it by the act of our knowing, and proves that into the performing of this act nothing has been admitted that is relative to the subject. An example of this may be seen in the dialogue which we have entitled *Moschini*.

But here, by way of summing up what has been said, we will place before the reader the various operations of human reason, arranged in the following Synoptical Table:

SYNOPTICAL TABLE.—No. III.

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REASON.

Reason is the faculty which applies the *idea of being* intuited by the intellect, either to what the sense supplies, or to what the intellect itself furnishes, that is, the idea of being, or again to what knowledge reason itself produces. Since the universal sensitivity accompanies all that is or takes place in the human soul, it follows that Reason has for its term not only all that is passive in the soul, but also all that is active. Thus the movements of instinct and will become terms of the Reason, as do likewise all cognitions. At the same time, however, the acts of the Reason, and the cognitions which it produces, become principles of new instincts and volitions; hence we consider it preferable to exhibit the derivation of the instinctive and volitional faculties after having derived the rational faculties.

The moving impulse given to Reason comes primarily from instinct, and then in general from the active faculties. On the other hand, Reason considered as having already obtained its term belongs to the *receptive* faculties. Reason has three principal functions:

Function I.—To form and modify cognitions, and actually to contemplate them after they are formed.
,, II.—To preserve the cognitions already formed. *Memory* (*Habit*).
,, III.—To recall these cognitions in act (*Reminiscence*). In the exercise of this function there is a *habitual activity*.

The second and third of these functions depend upon the first, and, therefore, it will be sufficient if we derive the different faculties of the first.

FACULTIES OF REASON IN SO FAR AS IT FORMS, MODIFIES, AND ACTUALLY CONTEMPLATES COGNITIONS.

These faculties may be specified and designated in two ways: 1.° From the different manner in which Reason acts; 2.° From the different kinds of cognition produced.

I. Faculties of Reason specified by the difference of manner in which it acts.

A. Direct cognition.
1.° Faculty of perception, having three grades: (*a*) Apprehension, (*b*) Affirmation, (*c*) Persuasion;
2.° Faculty of universalization, or of full specific ideas.

B. Reflex cognition, Reflection, which is
1.° Partial, when the scope of reflection does not extend to the whole of the knowable, but only to the discovery of a part of it, in which case it is reflection of the *first order*, *second order*, *third order*, and so on *ad infinitum*, because it can always reflect anew upon every new product (Dialectic). To every order of reflection there corresponds a different scientific

II. Faculties of Reason specified according to the different kinds of cognition produced by its use.

The faculties indicated in *Scheme I.* produce the following modes of cognition, after which the faculties may be named:

A. Faculty of Persuasion (Persuasion is a state of the soul produced by means of a word [λόγος] of the mind. The word is affirmation, and is pronounced by the mind: 1.° In perception when this is completed; 2.° In integration; 3.° In faith; 4.° In rational creation; 5.° In every judgment).

B. Faculty of Ideas, more or less determinate:
1.° Realizable ideas (full species),
2.° Completable ideas (abstract species, real genera or genera of substance),
3.° Elementary ideas (parts only of ideas, to which the mind confines its attention),

(*b*) Synthesis, or Composition of cognitions:
(1) Faculty of judgment (judgments are affirmative, negative, conditional, alternative),
(2) Faculty of reasoning (reasonings are categorical, hypothetical, disjunctive),
(3) Faculty of argumentation (analytic, synthetic).
(*c*) Rational human faith.
(*d*) Rational creation:
(1) Faculty of hypothesis,
(2) Faculty of personification,
(3) Faculty of error (erroneous judgments, absurd abstractions).

2.° Total, when the object of reflection is the entire knowable or tends to integrate it:
(*a*) Faculty of principles,
(*b*) Faculty of archetypes,
(*c*) Faculty of method,
(*d*) Faculty of absolute or transcendental knowledge.

which along with it are considered some of its relations),

6.° Ideas consisting of simple signs (these are purely entities supposed by the mind with the aid of signs, *e.g.*, the idea of naught, or any conception in itself absurd, but not known as such by our minds).

C. Faculty of Principles, or of the Application of Ideas. Any idea may be changed into a principle, when it is used as a rule of judgment. But the supreme principles are reducible to the supreme idea, *i.e.*, that of being, which takes the form of many principles according to its application. These supreme principles are:

1.° The principle of science, directing the Theoretic Reason:
(*a*) Principle of cognition,
(*b*) Principle of contradiction,
(*c*) Principle of substance,
(*d*) Principle of substantial individual,
(*e*) Principle of subject,
(*f*) Principle of the absolute (whence springs transcendental or absolute knowledge),
(*g*) Principle of cause:
(1) Efficient, which belongs to real being,
(2) Exemplar, which belongs to ideal being (sufficient reason),
(3) Final, which belongs to moral being (whence the faculty of Moral Reason).
(*h*) Principle of the order of being, considered with relation to the Theoretic Reason, the source of the knowledge of relations, whence the principles:
(1) The whole is greater than its part,
(2) Things that are equal to the same thing are equal to one another, &c.

2.° The principle of the order of being, considered with relation to the Practical Reason:
(*a*) With respect to contemplation: BEAUTY (archetype),
(*b*) With respect to the perfection of the intelligent subject: Law, Morals.

CHAPTER IX.

ON INSTINCT.

ARTICLE I.

What Instinct is, and How It is Distinguished from Will.

1066. Now that we have considered the soul with reference to its passions and receptivities, and deduced therefrom those powers which we have called passive and receptive, we must pass on and consider it in relation to its acts and thence deduce its active powers.

We must never forget what we have said with regard to the internal constitution of the soul. The soul, we have said, has the nature of a principle; but this principle is not conceivable except on condition that it has its terms, because principles and terms are correlates and form a synthesis. Now, in so far as the principle is affected by its term, it is *recipient* or *passive*. But this *receptivity* and *passivity* involve a degree of activity on the part of the principle itself; and thus, in created subjects, activity comes partly from receptivity and passivity, and partly also is a condition of these.

Supposing, therefore, that the principle is once posited *in esse* (its being, as we have said, lies in its union with its term), then its activity is not limited to receiving and suffering, but is such as to act upon its term, if that term is capable of receiving its action and of being changed by it; for if the nature of the term were one of pure act, all passivity and receptivity would be excluded by its essence, as is the case with God and divine things. Then the activity of the subject displays itself in the sub-

ject itself, either by its receding from or approaching its term, and thus modifying its own union with it.

1067. Now, since the primitive terms of the soul are two, the felt and the understood, toward the former of which it is passive, and toward the latter receptive; its activities are likewise two, and of very different natures. The one is called instinct and springs from sensitivity; the other is called will and springs from intelligence.

The term of instinct is mutable and, therefore, the instinct acting upon it changes it; but the term of the will, being the same as that of pure intelligence, is immutable because it is something divine (ideas): hence the activity which springs from the will is merely more or less receptive, in other words, merely turns back upon the soul itself, changing it instead of its term, which, as we have said, is the object of intelligence.

1068. Instinct, therefore, is the movement of sensitivity. And since sensitivity is bound up with all the powers and acts of the soul, even the rational ones, instinct has the widest possible range, being bound up with every part of man. Hence he who wishes completely to describe the ramifications of it must derive all the special activities of this power, by classifying and sub-classifying all the rest, and showing that each has its own proper and special instinct.

ARTICLE II.

Animal Instinct, and Rational Instinct.

1069. Instinct is in its own nature a blind power. But since the rational and moral powers have likewise their instincts, we must distinguish the instinct which is entirely blind in its movement and term from that which is blind merely in its *conation* or *movement*, but not in its *term*, or else is blind in its movement alone, but not in its conation and term. In fact, if we consider the instinctive movement of the will, we see that it begins with a light and ends in a known object. But, in so far as the motion of

the will takes place by natural and spontaneous inclination, without deliberation or decree (as is sometimes the case), that motion is blind, and it is only in this sense that that motion is said to be instinctive. And, to give an example also of that instinct which is blind in its conation and movement but not in its term, I may point to those acts whereby we acquire our first cognitions—acts which tend to acquire that cognitive light which previously they had not. When the subject moves to the acquisition of its first cognitions, it does not yet possess them, and, therefore, it can only move blindly, drawn by its own inborn feeling and activity; hence the *principle* of such movement is blind, although its term is cognition in which there is light.

1070. We must, therefore, in the first place, distinguish two branches of instinct, the one entirely blind, *animal instinct* (occurring even in man, because man too is an animal), which is not conjoined with any cognition either in its principle or in its term; the other, *human instinct*, which is indeed blind in its movement, but unites itself to some cognition either at the beginning or at the end of that movement.

ARTICLE III.

Ramifications of the Animal Instinct.

1071. If we consider carefully the various operations of animal instinct, we shall perhaps find them reducible to six classes.

Leaving, then, out of view that first act wherein the soul, by uniting itself to its term, posits itself—that act in which the whole *instinctive activity* virtually resides, the *principle of instinct*—and enumerating only the operations that flow from it, we have the following result:

1.° Instinct concurs in the production of accidental animal feelings;

2.° Instinct has the power of reproducing feelings, when these have lost their actuality and left in the spirit only

their vestiges or habitual inclinations. This reproduction usually takes place with the aid of the following instinctive faculties:

3.° Instinct, on account of the unity of the soul, has the power of associating and unifying feelings. This is what we call the *synthetic force of the animal*, that cause of so many marvels, that simulator of reason, of which we have spoken in detail in the *Anthropology*; *

4.° From the association of several feelings in the unity of the soul there spring up in it certain general modifications which we call *affections*, and are as it were feelings intermediate between the *single feelings* and the *passions*. These affections, therefore, are the generating principles of the passions, because when they are completed and leave in the soul an habitual *inclination to reproduce them*, then they receive the name of passions;

5.° And the *passions* are the fifth manifestation of the instinctive power.

6. Finally, the sixth manifestation of the animal instinctive power consists in the activity whereby that power modifies the sensiferous, producing in it movements which correspond to the attitudes assumed by the instinct itself.

1072. Let us say a few words respecting these last two manifestations, *i.e.*, the *passions* and the *spontaneous attitudes* assumed by the instinct.

ARTICLE IV.

Animal and Rational Passions.

1073. Passions are not merely animal. On the contrary, we must in man carefully separate the animal from the rational ones.

1074. Each of these classes may appropriately be designated according to the division which we find in Plato, *i.e.*, into passions belonging to the *Concupiscible* (τὸ ἐπιθυμητικόν), and passions belonging to the *Irascible*

* Bk. II, 416-494.

(τὸ θυμοειδές). By the Concupiscible is meant the inclination that attracts to good and withdraws from evil; by the Irascible is meant that sudden force which intensifies and gathers itself up in the soul, when the latter finds an external impediment to a given tendency*—a force by means of which it fights and struggles to remove and conquer the impediment, and to vent that concupiscent tendency.

1075. But restricting ourselves at present to the animal passions, those of the "*concupiscible*" tend to seek the agreeable and avoid the disagreeable, the animal having no other good or evil than this; whereas those of the "*irascible*" are directed toward removing or overcoming the difficulties which the tendencies of the concupiscible meet in their endeavours to display themselves completely. Hence, properly speaking, the *irascible* is only an activity of the concupiscible, which rebels and arms itself against the foreign obstacles which do not destroy it, but only oppose its progress.

1076. We must not, therefore, attribute *love*, which is a rational and noble passion, to mere animals. These have, in place of it, *unitive affection*, which subdivides itself into the *generative tendency* and that group of passions which is included under the term *gregarious tendency*. This latter tendency embraces the instinct which makes animals of the same species herd together, that which places various sympathies and antipathies between different species, that which unites the young to their mother, that which produces the affection binding some animals to man, domesticity, &c.

1077. The same may be said of *hatred*, which is properly a rational passion corresponding in animals to *aversion*, *antipathy*, &c.

1078. *Desire* also and *abhorrence* are not animal, but rational, passions. In place of them we find in animality various tendencies specified by their respective terms, *voracity*, *hunger*, &c.

* Be it observed that not every impediment excites anger, but only an impediment that is foreign and external to the animate body.

1079. *Joy* also is peculiar to intelligence. There corresponds to it in animality a certain feeling which has no proper or very definite name, because not all animal passions find a proper expression in language. Hence it is that the same word is often used in different significations, now to indicate a merely animal passion, now to indicate the corresponding passion which manifests itself in rational beings. This is the case with the words *sadness*, *gladness*, &c.

1080. This deficiency and poverty of language is one of the causes which incline minds that are not on their guard to confound the sensitive with the rational order.

1081. Among the animal passions we may reckon also that of *appropriativeness*, the passion which attaches the animal to certain inanimate things. It seems to be the very same in man, though it is not so in reality, because man enjoys also the knowledge of his property and this knowledge adds a rational element to the feeling of property. Moreover, man, through his moral faculty, raises the feeling of property to the order of *right*, of which the feeling is only the matter.*

1082. The words *anger*, *ferocity*, *fear*, *expectation*, &c., although frequently applied both to brutes and men, nevertheless seem to belong to the first more properly than to the second. On the contrary, the words *disdain*, *dread*, *audacity*, *hope*, *despair* manifestly express rational affections and passions, and if by writers they are sometimes applied to brutes, it is by a kind of metaphor and from that inclination which men have to attribute the intellectual life and the reason which they themselves possess, to all the beings which they perceive, especially if these exhibit such phenomena as are also produced by intelligence, although they may be produced by quite a different cause.

1083. In man, therefore, there are the animal passions, because, after all, man has the animal nature; but in him they receive from rationality a peculiar character which ennobles and specializes them.

* See *Philosophy of Right*, Derivative Right, Pt. I, 921-975.

1084. Moreover, the animal passions, which in the brutes are moved only by the stimuli and the laws of the corporeal sense, are in man sometimes excited by the rationality itself, owing to the influence which the rational soul exercises over animality. Thus, if we consider sadness as an animal passion, it may be defined as "that disagreeable feeling which the animal experiences when the circulation of the blood becomes slow in certain viscera and the activity of the nervous system is enfeebled." But this feeling which, in the animal, can be produced only by a physical or sensuous cause, retarding the circulation of the blood or depriving the nervous organism of its vigour, is in man produced sometimes by this same cause, but sometimes also by a piece of information that depresses the spirit, in other words, by the rational power.

1085. The animal passions, therefore, differ in man and animals for two reasons:

1.° Because, even when they have in man the same producing cause that they have in animals, the intelligence unites with them and modifies them. Thus the sadness which a malady induces in an animal is different from that which it induces in a man who knows of his own disease; and this knowledge increases his affliction. On the other hand, by means of motives furnished by reason he can alleviate and diminish this sadness, even physically.

2.° Because the animal passions themselves may in man be moved by a rational cause, as we have already said.

1086. But besides this, new passions display themselves in man, of which there is not a trace in animals. The reason is that the movements of the rational power produce new effects—feelings which cannot in any way be roused by mere animal instinct.

1087. These feelings which belong exclusively to man seem sometimes to be purely rational or to be confined within the sphere of intelligence, sometimes also to be shared in by his animality.

1088. In this latter case, animality undergoes an affec-

tion which cannot manifest itself in mere animals, because there is wanting in it the productive cause, which is none other than intelligence. I do not hereby wish to decide the question as to "whether in man there are affections so pure that the animality has no share whatever in them, or whether all affections are mixed." This subtle question I leave for solution to others. For me it suffices to establish that in man certain entirely new passions manifest themselves, which cannot be the product of animal instinct, and whose sole cause is intelligence—intellective passions, as far as their cause is concerned, although perhaps they are never purely intellective in themselves.

1089. Among these I do not intend absolutely to place the *sympathetic passions*, such as pity and the like. I say only that if anything resembling them manifests itself in the brutes, this can always be traced back to individual passions and feelings. The reason is, that the brute, in the last analysis, never moves save in virtue of its own sensions, whereas man participates in the passions of others *by merely knowing them*, inasmuch as, when he knows them, he can represent them to himself in his imagination, and so take part in them. Hence compassion is certainly a rational passion both in its cause and in itself. If anything similar to it be found in the brutes, it may always be reduced to the *unitive affection*, the *gregarious tendency*, &c.

The sources of the passions common to man and mere animals are the *agreeable* and the *difficult*. In man, by reason of his rationality, there are two other springs, the *rapid motion of the spirit*, and the *great*. The spirit, when it passes rapidly from one intellective state to its opposite, not only increases the vividness of the sensitive act by this rapidity, but likewise produces new and sudden feelings, such as *laughter*, *surprise*, &c. Again, it is only man that, by his reason, renders himself susceptible to the feeling of the *great*, which produces various affections such as *wonder*, *astonishment*, *ecstacy*, &c., all of them human passions to which the brutes are entire strangers.

ARTICLE V.

The Instinctive Power which the Animal Feeling has of placing itself in Various Attitudes, and the Faculties which thence result.

1090. We shall now speak, briefly, of the sixth manifestation of the animal instinct, which we said consisted in the power which feeling has of placing itself in certain attitudes, thus modifying the sensiferous.

In order to understand what we mean by this power, it will be necessary to call to mind that we know feeling in two ways, (1) by means of the feeling itself of which we are directly conscious (subjectively), and (2) by means of the phenomena which are produced by it and felt by us, but which are not the feeling itself (extra-subjectively). Thus, the feeling of pain differs from the movements which the pain causes in the body, for these we may see without feeling the pain. The pain is the subjective feeling, the movements are the extra-subjective phenomena produced by it. The latter indicate the former but are of an entirely different nature, and if the extra-subjective phenomena are known by means of other feelings, these have nothing to do with that of which we are speaking, although, as feelings, they also have their subjective and extra-subjective parts. This has all been set forth in the *Anthropology*, to which we refer those readers who wish to follow our reasonings.

Granting, then, that the subjective part of feeling is very different from the extra-subjective, we at once understand how the subjective feeling is altogether free from space, and, therefore, perfectly simple. Indeed in the concept of pleasure, pain, or any other purely subjective feeling, no one can find the concept of any extension, which is only the term of certain feelings, not feeling itself. Nevertheless the subjective feelings have a simultaneity and a correlation with the extra-subjective ones. We have said that between the two there does not exist the relation of immediate cause and immediate effect, because they are altogether dissimilar. Still, when the subjective pheno-

menon changes, the extra-subjective phenomena also change, and this causes us to believe that the change of the subjective phenomenon, if not the immediate cause, may be, at least, the mediate cause of such changes. Indeed, if we consider the matter merely with relation to the dissimilarity in the two series of phenomena, the point remains doubtful; it becomes clear only when we reflect that the subjective feeling terminates, as we have said, in the extended, and that the extended is itself already, in a sense, extra-subjective, although individually united to the subject, and also belongs to the extra-subjective phenomenon of the sensiferous, which is identical with it in substance. Hence although the (subjective) feeling is not the immediate cause of the extra-subjective phenomena of the sensiferous, still it is the cause of the change of its own immediate term (the extended), which term again is also the subject of the extra-subjective phenomena of the sensiferous. It follows, therefore, that the subjective feeling is the remote and indirect cause of the modification of the extra-subjective phenomena; in other words, cause of the cause of this modification. This point being settled, I say that the subject which is the principle of feeling follows this special law, that it uses and adjusts its feeling so as to be as much at ease, and consequently to have as little discomfort, as possible. Now, this power and activity whereby the sentient principle disposes and modifies its feeling, causes modifications to take place in the extra-subjective phenomena. The faculties related to these modifications are chiefly four:

1.° The *Locomotive Faculty*. By means of this the animal walks and uses its various organs.

2.° The *Formative* or *Plastic Faculty*. By means of this the animal attains to its full nature, feeds itself, &c.

3.° The *Faculty of Sensitive Habits*. This faculty enables the animal to assume one attitude rather than another, and by exercise, developes, and modifies itself, receiving new dispositions, new conditions of action and, hence, new spontaneities.

4.° The *Faculty which the animal instinct has of injuring and ruining itself.* This faculty to which belong all morbid phenomena is, like the preceding three, the same general faculty or power which feeling has, of assuming different attitudes according to the various conditions to which it is subjected by the various stimuli which act upon it, by habits, &c. Hence, when these stimuli place it in certain conditions, it is necessitated, always by the same law of spontaneity, to produce the morbid phenomena alluded to, and of which we shall afterwards speak.

ARTICLE VI.

Rational Habits.

1091. Let us now continue to speak of human instinct, which, though blind as instinct, always begins or ends in connection with some cognition.

Human instinct manifests itself by rational affections, which produce in the soul a *passive condition* called *rational passion*, and an *active condition* which constitutes *habits.*

1092. As regards *rational passions*, the little that we have already said must suffice.

As to *habits* (habit being "the disposition of a power to act in a given way") they divide themselves primarily as the powers and faculties which they actuate and modify are divided.

If we wish to classify the human intellective powers and faculties according to their effects, we may reduce them to two groups—those which produce effects within the subject, making it better or worse, and those which produce effects outside of the subject (extra-subjective), in other words, which cause the movements of bodies.

1093. Hence two groups of habits: those adhering to the faculties which produce effects within the subject, and those adhering to those faculties which produce effects outside of the subject.

1094. The faculties which produce their effects within

the subject are likewise reducible to two heads: *first* the *moral power*, and under this head we have the *moral habits*, good and bad, *i.e.*, virtues and vices; *second*, the *rational power* in so far as it acts in the subject, and here we have the rational habits of *memory*, the *sciences*, *prudence*, &c.

1095. But in so far as the rational power moves bodies, and so produces extra-subjective effects, it gives occasion to the second group of faculties, whence proceed the habits of the *liberal* and *mechanical arts*, of the *vicious movements of one's body*, &c.

ARTICLE VII.

Two Ways of Classifying the Rational Instincts.

1096. Thus far we have been dealing with the principal ramifications of the rational instinct by classifying them according to the *modes of its action.*

We obtain another classification when we take as the principle of the ramifications of this instinct the different *objects* to which it refers. But for the sake of brevity, we shall content ourselves with placing before the reader the following table, in which the instinctive faculties and functions are classified from both points of view:

SYNOPTICAL TABLE.—No. IV.

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INSTINCT.

Instinct is sensitivity moving itself, is the active part of sense. As we have seen, all the activities and passivities of the soul have the nature of sensible affections; hence there springs from each an instinctive movement. For this reason we may deduce the activities of instinct in the same manner as we deduced the activities of sense, intellect, and reason. Just, then, as the soul is essentially sensitive, so it is also essentially instinctive. It, therefore, contains in itself the general ground of all its own instincts.

Instinct is, in its nature, blind. But we must distinguish between that instinct which is entirely blind in its conation, movement, and term, from that which is blind only in its conation and movement, but not in its term, as well as from that which is blind neither in its conation nor its term. In fact, even the will sometimes acts instinctively, and then, in so far as it is illuminated by cognition, it is not called instinct, but only in so far as it moves spontaneously. So also the acts whereby we acquire our earliest cognitions are instinctive, being blind in their conation and in their principle, though not in their term, since they terminate in the light of cognition. We may, therefore, distinguish two kinds of instinct:

I.

Blind Instinct, which is not joined to any cognition either in its principle or its term —animal instinct, springing from

A. The felt extended,
B. The internal movement of the felt extended,
C. The organism of the felt extended.

According as these three forms of animal instinct vary, the character of the instincts themselves varies, as we see in the different species of animals, as well as in the different human individuals.

The functions of animal instinct are the following:

1.° To coöperate in the production of accidental feelings,
2.° To reproduce these feelings,
3.° To associate these feelings (synthetic

II.

Blind Instinct, but united at its beginning or end to some cognition—human instinct, which is

A. Either universal, and corresponds to the intellective sense (moral faculty, subsequently developed together with the will and liberty),
B. Or special, and corresponds to reason and developes along with it. This instinct may be described in two ways, according as we consider, either the different modes of its operation, or its different objects. Now,

1.°

The different *modes* of its operation are,
(a) Rational affections, giving rise to
(b) Rational passions—
(I.) *Individual* passions:
1. General affection, love,
2. Particular affections:
A. Of the good and the evil. Concupiscible:
(α) Love as a special passion,
(β) Hate,

2.°

Its different *objects* give us
(a) Human instinct directed toward the pleasures annexed to the *use* of one's own powers—sensations of the body—intellectual and moral feelings—mixed feelings;
(b) Human instinct directed toward the agreeable feeling annexed to the *possession* of one's own powers, with the various degrees of the perfection possible to them—quiet or absence of pain—feeling of personal perfection—feeling of

5.° The Passions—
- (I.) Concupiscible:
  - (1) Lust,
  - (2) Aversion, antipathy, &c.,
  - (3) Voracity,
  - (4) Appropriativeness, whereby the animal unites agreeable things to itself,
  - (5) Gregariousness, whereby
    - (a) Animals of the same species herd together and help one another,
    - (b) The mother lives with her young, nourishes them, &c.,
    - (c) Domestic animals take an affection for man.
  - (6) Hilarity, sadness.
- (II.) Irascible:
  - (1) Anger, ferocity,
  - (2) Fear,
  - (3) Expectancy, &c.

6.° To assume different attitudes, by modifying the sensiferous. To this are reducible
- (a) The faculty of moving the body,
- (b) The formative or plastic faculty,
- (c) The faculty of instinctive habits,
- (d) The faculty which the instinct has of injuring itself (hence all morbid or diseased phenomena).

(ζ) Sadness.

B. Of the difficult. Irascible:
- (α) Disdain,
- (β) Dread,
- (γ) Audacity,
- (δ) Hope,
- (ε) Despair.

C. Of the rapid movement of the mind, with pleasant and painful degrees (laughter, surprise, &c.).

D. Of the great (wonder, astonishment, &c.).

(II.) *Sympathetic* passions (participation in other's passions, compassion, &c.).

(c) Rational habits—
- (1) Of the moral power:
  - I. Vicious habits,
  - II. Virtuous habits:
    - *a.* Habits perfecting the will—*Justice*,
    - *b.* Habits perfecting the will as the mover of other powers, viz.:
      - (α) Of Reason—*Prudence*,
      - (β) Of Appetite:
        - (1) Concupiscible—*Temperance*,
        - (2) Irascible—*Fortitude*.
- (2) Of the rational power:
  - I. Habit of memory,
  - II. Habits of the sciences, or grounds of the special sciences and arts,
  - III. Habit of dealing with men—Shrewdness.
- (3) Of the faculty of ordered movements—Habits of the ARTS:
  - I. Mechanical,
  - II. Liberal.

feeling annexed to the most enduring and most secure actual and habitual *communication* with good and intelligent beings different from oneself, viz.:
- (1) Ideal entities—truth—justice—goodness—equity—gratitude—beneficence;
- (2) Real beings (passive and active affections):
  - I. Individual feelings or affections—sympathetic (compassion, &c.)—humanity—benevolence—friendship—love (spiritual, sensuous, generative, conjugal)—paternity—filial piety—love to a master—love to a servant:
  - II. Social feelings or affections—domestic society—tribe—country—civil society—church:

(d) Human instinct directed toward the pleasant feeling resulting from the *persuasion of personal perfection*, greatness and felicity, formed and maintained by
- I. The favourable opinion of other men—good reputation — esteem — glory (of various kinds);
- II. The marks of one's own greatness—luxury—pomp—superiority—exercise of power—singularity of excellence, &c.;
- III. The contemplation of one's own means and goods, and of their security (love of possessing, &c.).

ARTICLE VIII.

On the Principle of Instinct.

1097. Now, in order to understand the nature of each instinct, we must inquire what is its principle, the common principle of all its numerous ramifications. If instinct had not a single principle which, while always remaining the same, assumed different modes of operation, the generic epithet of *instinctive* could not be applied to denote the animal and rational functions which we have enumerated and classified.

What, then, is the principle of instinct? What is its intimate and immutable nature?

1098. Instinct indicates a mode of action on the part of the subject, or a law according to which it operates. To investigate this law is to investigate the principle and nature of instinct.

To this law, according to which when a subject operates, it is said to act instinctively, we have already alluded when speaking of animal instinct, attributing to it the power to place itself in the most agreeable attitude. It will be sufficient, therefore, if we render this observation more general, if, instead of limiting it to animal subjects, we extend it to all subjects, even those that are intellective and rational. In this way we shall have found the sole principle of instinct.

1099. In fact, we have already shown that every subject is a substantial feeling. Moreover, we have shown that every feeling has its own proper activity. In the third place, we have proved that this activity continually puts the feeling, whose principle it is, in the most agreeable condition possible, and does so because the act which gives this attitude to feeling is natural and proper to that activity; since no activity would be activity if it had not its natural act, whereby it posits itself, and is what it is. But the activity of a feeling may sometimes be dependent on, and passive to, something foreign to it; and this actually hap-

pens in all finite activities. These activities, these sentient principles, are all dependent upon the nature of their term, which is modified by any foreign cause or force. Now, the quantity and quality of this foreign term, as well as the modifications produced in it, are sometimes favourable to the actuation of the sentient principle, sometimes not. They are favourable when they help the said principle to display greater activity, and unfavourable when they repress its natural activity and prevent it from putting forth all its natural act. The activity of the principle then struggles with the impediment; and here we see what is the most general notion that we must form of the agreeable or disagreeable state of a feeling. A disagreeable, troublesome, painful feeling is one in which the sentient principle is prevented by the condition of its term from displaying all its natural activity. An agreeable feeling is one in which the principle freely displays all the activity that is possible to it according to the condition of its term, without being opposed or impeded by anything. Consequently, the activity of the sentient principle, in so far as put in act, is essentially *pleasure;* the more this activity becomes actuated, *i.e.*, the more fully it displays itself, the greater is the pleasure. The essence of feeling, therefore, consists in pleasure, and pain is nothing else than what forcibly or violently diminishes, represses or limits feeling.

1100. If, then, it is the natural and proper act of the sentient principle to display the greatest possible amount of feeling, given the condition of its term, it must do so spontaneously, which means that it does so with the same act whereby it exists, whereby it is a sentient principle.

Such is the principle of all instinct. It is found in the nature of every substantial feeling, of every subject. It is the activity proper to the subject. Why, for example, does the instinct for food manifest itself in the animal? Why does this instinct prompt it to perform all the movements it goes through in order to procure food? The reason is that these movements are so many efforts on the part of

the sentient principle to be more at ease, to arrive at a more complete, more agreeable state of feeling. We must not, with our imagination, stop at what appears on the outside when, *e.g.*, the wolf devours the sheep. The movements of the wolf which appear extra-subjectively to our eyes are only the consequences of the internal and subjective action that takes place in the wolf. We must in thought enter into the wolf and follow out the animal feelings which he experiences successively in this his enterprise. These internal feelings of the wolf's are the causes of his external movements. All that the wolf does, he does within him, in his feeling. When I say "wolf doing something," I mean merely sentient principle acting and placing feeling in the most agreeable attitude. If, in consequence of this internal action, there appear movements on the outside, they are consequences only in relation to our faculties of vision, and, in general, to the sensitivity special to ourselves. We speak of these external phenomena of our special sensitivity, as if the wolf produced them directly and immediately. It is not so. The action of the wolf begins, continues and ends in his feeling. It causes a change in the term of his own feeling (in his subjective body), and this change gives to our vision the movements of his body (extra-subjective phenomena). The wolf, by changing the terms of his own feeling, and by means of the terms so changed, acts also on external bodies (on the sheep), and what happens in the external bodies has new relations to our senses of sight and touch, so that we have new phenomena, viz., the movements and changes that take place in the body of the sheep, sensible to us. But I repeat, the true acting force, the first cause, of all this is the sentient principle of the wolf, who places his feeling successively in various attitudes until he succeeds in completing the act of his own nutrition. Such is the work of instinct.

1101. If we now consider an act of the rational instinct, we shall find that it takes place according to the same law. Why do we feel a natural delight in the consideration of

truth? Because our rational sentient principle has, for its natural and agreeable act the apprehension and contemplation of the true, and, therefore, we spontaneously try to apprehend and enjoy it to the best of our ability.

It is always the subject that is placing itself, its own subjective feeling, in the most pleasant attitude.

CHAPTER X.

ON THE WILL.

1102. We have placed instinct among the faculties; but we wish to remind the reader that it is rather a *mode* of action of the different faculties than a determinate faculty. It is, as we have said, a law governing the activity of the subject and constituting it. The will is the active part of the intelligent subject, and may be defined as "that virtue which this subject has of adhering to a known entity."

1103. This adhesion takes place by means of an internal *recognition*. But we must explain what we mean by this expression, *voluntary recognition*. Taken strictly, *recognition* implies a previous cognition, and that forming an equation, if we may so speak, with recognition, so that the object of recognition remains the same as it is in cognition. This happens sometimes, and then the voluntary recognition is true, just, moral, because the will, in recognising the previously known entity, does not alter its value, but is content with that measure of value which direct cognition prescribes. On the other hand, it sometimes happens that the will, instead of adhering simply to the entity known, arbitrarily increases or diminishes for itself the degrees of beingness which that entity has, and thus estimates it at more or at less than its true worth, recognises it as what it is not, not as what it is. It assumes that this entity is different from the one contained in the direct cognition, thus substituting for it another entity, feigned and created by the energy of caprice belonging to itself. This is certainly not recognition pure and simple, but a counterfeiting and imagining of what one wishes afterwards to

recognise. *Recognition*, therefore, strictly speaking, means the act of the will when upright and veracious: when, on the other hand, it is crooked and mendacious, the act of the will is, first the production of a fiction, and then assent to what has been thus produced. But, for the sake of brevity, we sometimes use the word recognition to express the first voluntary activity, whether honest or dishonest. *Simple recognition*, then, and *fictitious recognition* are the two modes in which the volitional activity manifests itself.

1104. What, then, is this act of the will, honest or dishonest, which we call recognition?

It is the complacency which the intellective subject takes in the entity known. Why does the intellective subject feel complacency in the entity known? Because known entity, and therefore all entity, is its proper object, that which causes it to perform its own proper act. The proper act of a subject is that which makes it to be what it is. Now every living subject loves to be, because to a living subject the act of being is a pleasure, the essence of pleasure. Hence, for the same reason that the intelligent subject, finding in existence its own proper good, tends with its whole self to exist, it also tends to exist as much as it can, to increase its own existence, to heighten and widen the act of the same, and hence to take satisfaction in the objects of this act, since by them it displays, increases and perfects itself. Thus it is that every known entity is a good to the knowing subject, and all the more so, the more degrees of being that entity has.

But, inasmuch as man is not a purely intellective subject, but is likewise endowed with corporeal and rational sensitivity, it comes to pass that he does not always act according to the tendency and the law of intelligence, but sometimes according to those of animal or rational sensitivity. When the tendency of this twofold sensitivity prevails over that of pure intelligence, what does he do? Not liking to give up the tendency of intelligence, he

seduces and deceives himself—persuades himself that the good presented to him by the animal or rational feeling is greater than it is, greater than direct cognition says it is. In this way he feigns and counterfeits the object of direct cognition, partly destroying it or concealing it from himself, partly adding to it by his imagination, and creating in it that good which is not in it. This is the faculty which man has of lying and sinning. He is not constrained or necessitated to do this; but he can do it and sometimes does it. This is properly the caprice of the will.

Whenever, then, recognition is dishonest or mendacious, it is so because it is preceded by a feeling and an affection which distort and seduce the recognitive will.

1105. But if recognition, either simple or fictitious, is the primitive act of the will, do the effects of the will stop and terminate in it? No; the recognition has a real efficacy which brings with it various consequences in man.

These are primarily of two kinds, the *decrees* of the will and the *affections*.*

1106. When the thing recognised by the will is something that a man does not yet possess, then there follows a voluntary decree whereby the will resolves to procure it and, hence, to put in action the means necessary to attain this end. For example, a person who is wounded wishes to have his wound healed. He first recognises this healing as a good thing; then he decrees to apply the proper remedies, and, in consequence of this decree, moves his hands and applies those remedies. This external movement of his hands and body follows as an effect of the

* It must be admitted that the Schoolmen directed their attention almost exclusively to the *decrees* of the will, and hence to its free action, which belongs to the *decrees*. Modern philosophy, from having fallen into sensism, has considered exclusively the *feelings* and the affections of the will, thus almost losing sight of its decrees and becoming inclined to destroy free will. A recent writer makes the following observation upon an English philosopher, who certainly contributed to pave the way for the Scottish School: "Pour Hutcheson ce n'est plus cette volonté abstraite, synthétique et toute libre des écoles, mais c'est le côté actif, le côté affectif, passionné, industrieux, artiste et moral de l'intelligence, l'essence, en un mot, et le fond de la nature humaine."—*Qu'est ce que La Phrénologie*, p. 131.

decree which has power to move the locomotive animal force.

1107. But sometimes the thing recognised by the will as a good is already possessed and there is only question of enjoying it to a greater degree. In this case the immediate effect of recognition is the *sensible affection* which moves spontaneously, and is merely an increase and perfection of that pleasure which is already contained in the recognition of the good possessed. These spontaneous effects are followed by bodily movements which aid them, and manifest themselves externally to on-lookers, in the form of those external gestures and actions which naturally betoken the joy or sorrow, or other affections interiorly conceived.

1108. But although the recognition of a known good that has become more or less habitual, or more or less actual, continues instinctively as an affection, nevertheless the will also may intervene with a decree to excite the same affection, and this may render the habitual recognition actual, or else give it greater actuality than it would have through the force of instinct alone.

1109. Thus, the movements which take place in the body may proceed from the will in two ways, by *decree* and by *affection*.

1110. We may, therefore, distinguish three kinds of acts belonging to the will.

1.° *Instinctive acts, i.e.*, spontaneous affections, in which we may include, both the spontaneous recognition which is the principle of them, and the consequent movements of the body;

2.° Decrees determining the acquisition of a good not already possessed, and the use of the necessary means, or else determining the acts whereby to increase the enjoyment of a good already possessed. These decrees are usually called *elicit acts* (*actus eliciti*);

3.° The movements which the decrees determine for the powers employed. These movements are usually called *commanded acts* (*actus imperati*).

1111. *Elicit* as well as *commanded* acts are always

assented to by the will; but *instinctive* acts are assented to only when the will, having the power to prevent them, decrees not to do so. Hence assent always presupposes a decree. At the same time, the decree not to prevent spontaneous acts may be either proximate or remote. It is proximate if one decrees not to will to prevent these acts: it is remote if one decrees not to will to prevent the cause of them; it being generally admitted, that "he who wills the cause, wills the effect."

1112. All the acts of the will are called volitions. Its instinctive acts not prompted by any decree are volitions without choice.

Choice always lies in the order of the decrees; because whenever we internally pronounce a decree, we choose between willing and not willing the thing. This choice is sometimes so free as to be determined by the energy of the will itself and not by its objects, and then there is what we call *bilateral liberty*, that liberty which is necessary for the moral merit proper to men in this life. The conditions of the exercise of bilateral liberty have been expounded by us in the *Anthropology* and elsewhere.

At present it remains for us merely to place before the reader the ramifications of the Will in the following Synoptical Table:

SYNOPTICAL TABLE.—No. V.

—:—

WILL.

The will is that power which the human subject has of moving itself and adhering to a known entity, taking satisfaction in it. (The contrary or negative act is reducible to the positive act.)

It is a force or activity proper to the soul as principle, because cognition determines nothing but the act of understanding, and what the soul does beyond this in consequence of its understanding comes from itself as principle. The functions of the will are:

I. *Primitive Function, i.e.*, Recognition, which is either simple or accompanied by *Fiction—Faculty of Practical Reason.*

II. *Secondary Functions*, co-ordinated as follows:

1.° Instinctive affections, when the recognition relates to good in so far as already possessed:

A. Affections which remain within the subject;

B. Movements of the body, which follow the affections by virtue of a dynamic *nexus.*

2.° Decrees, which may have as their objects:

A. The recognition of an entity different from oneself, which recognition may be followed by either spontaneous or decreed movements—BILATERAL LIBERTY.

B. Affections or Feelings:

(1) In a negative way, by decreeing to let them arise, when they arise spontaneously from recognition,

(2) In a positive way, by decreeing to excite or increase them.

C. The Acts of the Rational and Moral Powers.

D. The Movements of the Body.

III. *Tertiary Function:* Movements of the body, following spontaneously from affections whether decreed or spontaneous.

BOOK III.

(SYNTHETIC.)

ON THE LAWS WHICH GOVERN THE ACTIVITY OF THE SOUL. — HOW THE VARIOUS LAWS OF THE SOUL'S ACTIVITY DERIVE THEIR ORIGIN FROM ITS NATURE.

Omnibus Viribus insistendum est ut quid sit Ratio sciatur.

St. Augustine, *De Immort. An.*, cap. vi.

1113. Whenever the human mind turns to the study of material things, the analytic method obtains. The reason of this is that matter is known to man by its divisibility, by its parts and their different sensible combinations, aspects and appearances. Such, at least, is the knowledge which the natural sciences try to have of it; for they do not go beyond *perception*, which is their sole foundation. This exercise of analysis is of the greatest utility for training the mind and rendering it more alert in scientific pursuits. But, inasmuch as man is limited, it comes to pass that when he takes to a partial method and becomes attached to it, he easily forgets or fails to appreciate other methods which are likewise good, and indeed necessary for the perfection of science. Besides this, there is in man a tendency to run into extremes, and therefore, no sooner has he devoted himself to analytic reasoning and obtained good results from it, than he persuades himself that this one method suffices for everything, and that analysis is the

only source of all wisdom. And, after all, this excess of confidence which inquisitive men place in analysis in those ages in which the natural sciences take the upper hand, is not without a certain advantage in educating the human spirit, which can never hope to carry on scientific synthesis with success unless it has first perfected, and, if it were possible, exhausted, analysis. Now analysis would, perhaps, never advance so far, if the mind applied itself to two processes at the same time, to following two ways, reasoning partly in an analytic, partly in a synthetic way.

1114. For two full centuries the human mind has been analysing; it being more than two centuries since the physical and material sciences have acquired a decided ascendency over the intellectual and moral. These, accordingly have, during all this time, been feeling the evil effects of this analytic method, which, when it prevails so far as to exclude synthesis, is sufficient for the discovery of certain truths, yet, if it attempts to do what it cannot, gives birth to errors. The truths which analysis fails to discover when unaccompanied by synthesis are, in many cases, just those relating to the nature and the laws of spirits, which, being simple, cannot be divided into material parts. Most certainly, the study of spiritual natures cannot be carried on successfully by means of analysis alone, and least of all, by means of material analysis. Hence the abject condition, into which the sciences relating to spirits have fallen since the decay of Scholasticism, must be attributed precisely to these two causes, 1.° That they have been conducted exclusively on the analytic method, without any regard to synthesis, and 2.° That they have been treated with that kind of analysis which is very suitable for matter, which is multiple, but not at all for spirit, which is simple and one.

1115. On examining the history of the philosophy of spirit from Condillac down to the whole Scottish school, we, without at all wishing to find the philosophers of this school chargeable with materialism, cannot help noticing that in their writings the unity of the human spirit is lost.

This spirit has become a mere *aggregation of faculties*, existing in a kind of juxtaposition. Of principles of action, of facts of the first order, in a word, of the principle from which the various faculties issue and to which they return—I mean the *Substance-principle*—they either do not speak, or speak only in a passing way, as if this principle were a mere accessory, a sort of appendage; whereas it, and it alone, is the human spirit.

1116. If these philosophers by proceeding in this way beheaded, so to speak, the psychological sciences, it was because they made an exclusive use of analysis, the use of synthesis having almost entirely dropped out of their minds. But the Phrenologists, who succeeded them, produced works tainted with the gravest errors, for the reason that they not only applied to spirit the analytic method alone, to the exclusion of the synthetic, but even applied that material analytic method which is suited only to bodies, just as if they meant to say that the aggregation of faculties of which the previous philosophers had made the soul consist were nothing more than the *aggregation of the several very distinct organs* composing the brain.

1117. Hence it was not without reason that a recent writer drew a comparison between the writers of the Scottish school and the Phrenologists, and found that both erred equally in this, that they left out of view the unity of the subject, breaking it up into distinct faculties, or into organs, which afford proper material, no longer for the exercise of mental analysis, but for dissection by the anatomist's knife.*

1118. No one will charge us with being averse to analysis. We repeat that no truly scientific synthesis, no veracious synthesis, is possible unless the analytic process has been, in some way, exhausted beforehand. If we have begun the present work with the pre-eminently synthetic question: "What is the nature of the soul?" this was permissible, because in previous works we had analysed in

* *Analyse Critique des Doctrines Phrénologiques.* Par M. Flourens, Secrétaire Perpétuel de l'Académie des Sciences. Paris, 1842.

detail all the acts and faculties that can be observed in the soul. And we analysed all these with that kind of analysis which belongs to spirit alone, an analysis which does not cut it up into several parts, but considers the single parts without rending them from their one root in which they live and move and have their being, and which is the substance of the soul itself.

1119. Now, after having meditated on that first synthetic question: "What is the nature of the human soul?" we derived from this one root (the soul) all the human faculties and functions, carefully distinguishing and enumerating them; which was a returning to analysis. But having finished this process, having derived the human faculties from their principle, we must reduce them again to this principle in order that we may thus discover the laws of its action and theirs. For this reason we have called the three following books, which treat of the *laws* according to which the powers of the human spirit act, *synthetic*. These laws, indeed, have their origin in the inmost nature of the spirit, and are consequences of that first and substantial act by and in which the spirit is what it is, or, better still, of that act which is the spirit itself. Besides, the theory of the laws which govern the activity of the spirit must be called synthetic even for this reason, that every law duly established is, after all, but a great synthesis to which we reduce innumerable acts performed in the same manner, which manner is precisely the mark and substance of the law.

1120. As in the preceding book, which had for its object to enumerate and describe the special powers of the soul, we began by deriving and gathering them from the soul's essence itself, so now we must, before everything else, point out the one source of all the laws that govern the spirit and its activities, in the acts wherein they develope themselves, this source being again the essence of the soul. We will begin at once.

CHAPTER I.

ON HUMAN NATURE: RECAPITULATION.—DEFINITION OF MAN.

1121. Let us, therefore, again take up human nature as we have described it: let us recapitulate all the elements that go to make it up, and in the nature of these let us look for the laws which govern its action, the action whereby it developes and perfects itself. With a view to this, let us first of all reconsider the definition of man.

1122. Man is "a subject, animal intellective and volitional." This definition may be summed up by saying: "Man is a rational subject."

The former of these definitions has the advantage of indicating the primitive powers of man. In fact, intelligence is a *primitive* power, whereas reason is a *resultant* power, as we have seen. For this reason, we have preferred to say that man is an intellective subject, to saying that he is a rational subject. If, however, we had put in the first definition the word *reasonable* or *rational*, instead of intellective, we should no longer have been able to place animality in it, since this would have already been comprised in rationality, and, therefore, we should not have accomplished our purpose of giving a definition in which the primitive powers were distinctly mentioned.

1123. In spite of this, now that we are treating the question anew, we hold that the other definition just quoted—"Man is a rational subject"—is the more perfect of the two; because, supposing that the term *rational* has been previously explained, as has been done by us, this definition has, besides brevity, the following two advantages:

1.° Although intelligence is a primitive power, it does not by itself suffice to constitute the nature of man. The possession of intelligence alone would, indeed, give an intellective being, but this being would not yet be a man. So long, therefore, as our thought stops at intelligence, man is only in process of formation, he is not yet formed. The activity which posits man is Reason.

2.° Reason being the activity in which intelligence meets and is conjoined with animality, it fitly expresses the unity of the human subject and the primordial link of his powers. It is true that in the definition, "Man is a subject, animal intellective and volitional," the word *subject* sufficiently marks the unity of the human being; but the definition, "Man is a rational subject," besides expressing the unity of man, indicates also how this unity is formed, that is, in virtue of the Reason, which unites in itself intellect and sense.*

* In the definition, "Man is a rational subject," the word *rational* does not, properly speaking, express the power of reason, but the quality of rationality proper to the essence of man.

CHAPTER II.

BETWEEN BEINGS THERE ARE LINKS OR RELATIONS WHICH ARE ESSENTIAL TO THEM AND CONSTITUTE THEM WHAT THEY ARE.

1124. Now, in order that this marvellous *nexus* of animality with intellectuality may receive the light which is needed to enable us to deduce from it the laws which human nature follows in its action, we must keep clearly before our minds the ontological doctrine on the *relations essential* to beings, called essential because they go to constitute them.

And, first of all, let us be careful to remember that the beings of which we are speaking are those which fall within our conceptions, because if we did not conceive them we could not speak of them.

1125. Now these beings that fall within our conception have in them relations so essential that without them they would not be what they are. Hence they change their nature in our minds according as we consider them with one set of these relations or with another. The truth is, if we take away from a being one of its essential relations, it becomes at once by this very fact another being and is expressed by another word. In the same way, if a new essential relation is added to it, it is no longer the same being it was, but another, and this for the simple reason that the relations in question are essential, which means that they form part of the essence of the being, *i.e.*, part of the being itself. This observation will be clear to those who know our theory of the synthesism of being. Now we must apply the theory to the different entities which enter into the constitution of the human soul, and whose nature and intimate *nexus* we require to know, in order to deduce their laws.

CHAPTER III.

ON THE ESSENTIAL RELATIONS OF EXTENSION AND THE EXTENDED.

ARTICLE I.

The Extended has two Essential Relations: the one constitutes It what It is in Itself, the other constitutes It the term of a Sentient Principle.

1126. If we consider the being endowed with extension, we shall easily perceive that the concept of extension results from an *essential relation* between the parts which our thought can assign in a given continuous, or between the points which we can at pleasure conceive in it. The essential relation among the parts in question consists in this, that every part is outside every other. The essential relation among the conceivable points consists in this, that between one and another there is a certain, larger or smaller, *continuum*, so that the points can never touch each other. The concept of extended being results from these relations, and, therefore, extension involves a possible relation of extended part to extended part, and of point to point, this latter relation being *distance*.

1127. If, on the contrary, we consider the relation of the continuous to the sentient principle, the case is altogether different. We have no longer a relation of part to part or of point to point, because the sentient principle is neither an extended part nor a mathematical point. This relation between the extended and the sentient principle we have called *relation of sensility*. It is plain that this relation is inextended, for the simple reason that it is not a relation of part to part, or of point to point, which alone forms exten-

sion. Hence we have concluded that the sentient principle apprehends the extended in an inextended way. Again, to say, as we do, that the sentient principle apprehends the extended, is equivalent to saying that the extended is in the sentient principle. But the extended is not in the sentient principle, as one part is in another larger than itself. Therefore, the extended is not in the sentient principle with that relation which constitutes extension. It is, therefore, in it in another mode, an inextended one.

The same thing may be proved by another argument. What do we mean when we say that one being is in another in an extended mode? We mean that it is in the other according to the law of extension. And what is this law? It is, that one being is in another as a smaller extension is in a larger, as the part of a body is in the whole. A part of a body is in the whole in such a way that it is outside of every other part, so that no body, properly speaking, is contained in another body, although it may be surrounded by another body, precisely because extension has such a nature that every part of it is outside of every other. This property, when considered in bodies, is called *impenetrability*. On the other hand, if we consider how the *sensible extended* is in sensation or in sensitive perception, we find that it is not in it in the mode above described, because we have not here two extensions, the smaller contained in the greater, but the entire extension is present to the sentient and percipient principle, which is not a greater extension including a less, but is something different from extension, and having extension as its term. Consequently the extended is not in the sentient principle according to the mode prescribed by the law of extension, but in an inextended mode. All this is furnished to us by simple observation, and is an undeniable fact which requires nothing but attention in order to be recognised.

If still another proof of this truth, or another mark whereby to recognise this fact, be desired, the following reasoning may be made a subject of meditation. The phrases, "One body contains another; One extended con-

tains another smaller than itself," are inaccurate and, strictly speaking, false; for the simple reason that extension and what has extension are, as we have just said, impenetrable: one part cannot be inside the other without destroying its own extension. Now, if the extended were contained in the sentient principle as one extended is in another, it would follow that the extended would never be contained in the sentient principle. The sentient principle would only surround it, stand beside it. In this case, the sentient principle would never be able to feel the extended, because the extended would always remain outside of it, a thing which happens in the case of every extended with respect to every other, and furnishes the reason why the extended cannot feel the extended. But the sentient principle feels the extended, and feels the whole of it; therefore the extended must be in the sentient principle according to another relation, according to a law different from that of extension, consequently in an inextended way.

Moreover, if the sentient principle had extension and perceived extended things by receiving them into its own extension, the extension of the sentient principle would either be the same as that of the extended things which it feels, or it would be different. If it were the same, the sentient principle would feel only itself, and no new feeling would ever be added to it: if it were different, and a second extension were added to that of the sentient principle, the new extension, in order to be felt, would have itself to become a sentient principle—another absurdity, because in sension and sensitive perception the sentient is one thing and the felt another.

Lastly, if the sentient principle were extended, each part of its extension would feel only an extended part equal to its own dimension. But, however small might be the parts assignable therein by thought, they might always be further diminished, and this indefinitely. Thus the smallest parts would never be found, because in the extended there are no parts absolutely least. It follows

that the sentient parts would never be found, because each part could not be felt entire by its corresponding part, since, this part itself having other parts, each of them would not feel the entire part, so that it would be impossible to determine a part that all felt the whole of another part. There would therefore be no sentient principle capable of feeling the whole of an extended, however small this might be.*

For the same reason there would be no felt extended, because there would be no sentient principle capable of feeling it as extended. Even if we supposed the sentient principle to be a mathematical point, it could feel nothing more than a mathematical point, because the point, like the extended, has no existence or action outside of itself and, therefore, would not feel the extended. Indeed, the extended itself would not be at all, since it cannot exist outside of a sentient principle. In truth, if, in the extended, every part is outside of every other, every part, or, to speak more correctly, every smallest extended, exists outside of every other. It follows that the existence and essence of every part is limited to itself, and has no essential relation of its own with any other. But every smallest extended is a union of still smaller *extensa*, and so on indefinitely, so that the last *extensa* are not discoverable, and thus extension vanishes. If, then, extension implies possible parts coëxistent, if it implies continuity having one simultaneous existence without interruption, it must have a simple principle embracing simultaneously all possible parts, so that there remains, not the separate existence of the single

* When, in the last century, D'Alembert asked "What is the bridge of communication between our spirit and external things?" he put the question in an absurd form, because in it he assumed as given and granted that between the spirit and things there must be a relation of extension, such as there is between one bank of a river and another, between one body and another. When the erroneousness of this supposition is discovered, the question ceases to exist. It is seen to be one of those questions to which no reply can be given, because truly they do not exist. The relation between the spirit and things is not a relation of distance, but of sensility, not of corporeal part to corporeal part, but of body to spirit, of felt to sentient. Hence we may derive an important logical principle, which is: "Questions put so as to include or suppose an absurdity cannot be answered; but on the discovery of the truth, they cease to exist. The truth at once alters the form of the question, and answers it in its true form."

parts, but a single existence, a single being formed out of them all. Such, indeed, is the nature of the continuous that parts having an individual and independent existence can be assigned in it by thought, and yet it has no such parts in so far as it is continuous. The ground, therefore, of the continuous, which is the property of extension, does not lie in the individual existence of the single parts, but in a simple principle superior to them, which imparts one existence to them all, and which, by embracing them, abolishes them, making them cease to be parts of a continuous, in order to be solely continuous. Now this is done by the sentient principle, to which the continuous is present without parts, although innumerable parts may be assigned in it by thought. For this reason we said that the extended can exist only in the simple (440-452).*

1128. The important result to be derived from these arguments is this, that we may speak about the nature of extension and of bodies in two ways and, therefore, may have two concepts of it. In fact, we may consider the nature of the extension of bodies,

1.° *In the relation essential to extension*, which relation consists in this, that every part is outside of every other. In so considering it, thought does not go beyond extension and what is extended; it merely considers it in itself, comparing one part with another.

2.° *In the relation, also essential, of sensility.* In so considering it, thought compares extension or the extended with the sentient principle, and finds extension conditioned by it and existing in it.

The generality of men consider extension and the

* A glimpse of this truth was caught by the Schoolmen when they came to inquire whether the intellective soul was the only form of man. St. Thomas answered the question in the affirmative, and said: "*Per animam et est corpus, et est organicum, et est potentiâ vitam habens*" (*Sum. Theol.*, Pt. I, q. lxxvi, art. iv, ad 1m). And the famous and very subtle Gäetano, in trying to explain how the soul as the only form of man produces even his corporeity, says: "*Hic non est quæstio nisi de quanto et extenso per accidens, id est,* SUBJECTIVE," without, however, reflecting either that in the subject itself the extended exists as distinct from it, or that the principle which immediately makes the extended exist is the sensitive and not the intellective one; or, again, that outside of the subject the extended itself vanishes. Still the Commentary of the illustrious Cardinal deserves to be read.

extended in the former of these relations only, and place its essence in that. The philosopher must consider it likewise in the second, and understand that this also goes to constitute its essence, and consequently, that extension has an *essential nexus* with the sentient principle, which is distinct from it. These *nexus* existing between two beings and essential to both are the foundation of *ontological synthesism*, and the key to the highest philosophy.

1129. Now it must be observed that the first essential relation is not destroyed by the second, but, on the contrary, that the second implies the first. Indeed, when continuous extension, or the continuous extended, is considered as existing in the sentient principle, it does not, in the least, follow that it is confounded with the sentient principle, to which, in point of fact, it is even opposed as term. This term, therefore, is a being in itself, so constituted that it can be conceived by its own self alone, and is, therefore, a substance, since substance is what has everything necessary to being conceived by the mind, and, therefore, is what exists in itself. Be it carefully noted, that in order that a thing may be a substance, it is not necessary that it should not have a cause or a constituting principle, but merely that it should be conceivable by itself. To say it more briefly, "a substance is what has a concept of its own." At the same time *substance* involves also a relation to *accident*, as in the case of the corporeal substance, which admits of various accidents existing in and through it, and having no separate or independent concept, for the reason that it is impossible to conceive a corporeal accident without first conceiving a body, an extended in which it exists, and which on this very account receives the name of *substance*. Substance, therefore, is a being (or that which has a concept of its own) considered in relation to other entities that exist in and through it. This is the most complete definition of *substance* (no. 52).

1130. It will perhaps be said that, if the continuous extended has for its essential relation existence in the sentient principle, it would seem that we could not conceive

it without a reference to the sentient principle in which it exists, because all that is essential to a being enters into the concept of it. But it must be observed, in the first place, that this was exactly the reason why we said that, by the addition or subtraction of an essential relation, a being changes in our concept, because a change has taken place in its essence; for, as we remarked, the beings of which we speak are those which we conceive: nevertheless the essential part which is added does not change the previous one.

1131. Again, we must reflect that the concept of the continuous extended, although considered without reference to the sentient principle, presents in itself that which the simplicity of this principle produces, *viz.*, *continuity*, so that it is by reasoning upon the nature of this continuity that we subsequently come to infer the necessity of a sentient principle. But this inference, although based upon the first concept of the extended, nevertheless belongs to a process of reasoning subsequent to the forming of such concept, a process not necessary to the idea of a being, which, as we said, is posited by the *first concept of it.*

ARTICLE II.

Difference between Extension and the Extended.

1132. Thus far we have spoken of extension and the extended without distinction, because what we had to say was equally true of both. Now, however, before proceeding to speak of the unity which the sentient principle imparts to its term, for the sake of clearness and in order to remove all doubt from the minds of those who wish to follow us in our reasonings, we must distinguish *extension* from the *extended.*

By *extension* we mean the same thing as space considered independently of bodies; by the *extended* we mean the body occupying a part of space or extension. Extension or space, whether full or void, occupied or not occupied by bodies, exists equally. It is certainly not nothing, as some

people would have us believe, since nothing cannot be occupied by anything, and no parts can be assigned in it by thought, as can be done in the case of space.

Now this space is boundless,* immovable, indivisible or continuous, and immodifiable; it is only bodies that are measurable, movable, divisible, modifiable. Still bodies, whether they be placed here or there in space, do not modify space: this always remains what it was before.

1133. We hold that pure space is a term of the fundamental perception of the soul (554-559).

This primitive space is not a form in the Kantian sense, that is, a law of action and a production of the soul itself,

* As we say that space is *boundless*, so also we may say that it is *infinite*, if we take this word to mean that no confines can be assigned to it. Among Italian philosophers who have recognised the infinity of space, I would name Francesco Orioli, who justly observes that the *infinity* attributed to space has nothing to do with the *infinity* which belongs to God. "We must remember," he says, "that the kind of *infinity* which, according to theology and philosophy, must be deemed as belonging exclusively to God, is not an infinite unaccompanied by substantiality, and consequently by any activity or power, but it is *operative infinity*, the infinity to which belongs the possibility of action performed or suffered. Now the kind of infinity which, according to us, belongs by nature to space (and the same may be said of time, of which we shall afterwards speak), is a purely *extensive infinity*, an infinity, therefore, entirely of the first kind and, in no sense, of the second (whereas the infinity of God is at once intensive and extensive); in a word, it is the dead, and not the living, infinity . . . . infinity of a kind of nothing, devoid of all power of action and passion, and not capable of becoming anything except in relation to its contents, actual or possible" (*Spighe e Paglie*, Opera Periodica del Prof. Francesco Orioli. Corfà; Tipografia del Governo, 1844. Vol. i, Quad. i, Lett. ii: *Elementi dell' Universo; Lo Spazio*). In these words the illustrious Professor points to an important truth, when he says that the infinity of space is an infinity of a kind quite different from that which belongs to God; but then, in my opinion, he has allowed certain inaccuracies to slip in, which I must here point out, in order to prevent ambiguity. 1.° It cannot be admitted that God has an *extensive infinity*, if this word be taken in the sense in which it is applied to space, because in God there is no spatial extension, although space is in God in the same way that all other creatures are in Him. 2.° It cannot be admitted that space is a kind of nothing, since nothing has not any kind and much less any infinity. It need not be objected to this, that mathematicians distinguish several kinds of nothing, because the mathematical nothing is quite different from what we usually mean by this name, being the annihilation of something by means of a mental operation, as, for example, when we subtract five from five the difference is naught [5 — 5 = 0]. On the contrary, space does not arise from any operation of the mind, removing something that it had previously posited. 3.° It cannot be said that space is unaccompanied by all activity and power, because it has a first act, which is that of existence, although it has no second acts; for which reason we hold that it may be called a *being*, but not a *substance*. 4.° Neither can it be said that the infinity proper to God alone is one containing the possibility of action performed or *suffered*, because God is pure act, and in Him there is no passion [πάθος] or suffering.

but it is the term, distinct from the soul, of a natural perception. This term, however, has successively two states, a *primitive* one, devoid of any quantitative or other distinction or relation (indistinct pure space); and a *reflex* one, the result of mental reflection, which compares the primitive space, as perceived intellectually, with the various dimensions of bodies and with the possibilities of such dimensions (ideas of distinct pure space, *i.e.*, of space referred to bodies).

This reflex space, pure but distinct, with quantitative relations, is of another kind; it is the *idea of interminable space*, whose origin we have explained in the *New Essay*.* We admit that one of the terms of the fundamental feeling is an extended body, and, therefore, also a distinct extension, limited as much as the body is. But since the animal has the power of moving, and such moving is only a transporting of the body from one part of space to another, it follows that, if there remain behind any vestige of the space previously occupied, the distinct space will be increased in the sentient principle in proportion to the movement and the retentive power of that principle. When, on the other hand, this motion takes place in man, who, through being endowed with intelligence, has the concept of the possible, he understands the possibility of the space of his own body, or of any other, being multiplied and extended indefinitely by means of motion, and thus he forms the concept of reflex space, distinct, and pure or immeasurable.† This concept, therefore, is lacking in the animal, which has no concepts, and in man is acquired, whereas the

* Vol. ii, 820-830.

† We must here add that this mental operation, whereby man conceives an interminable space would be impossible for him if he had no other than absolute motion because this is not sensible. (See *New Essay*, &c., vol. ii, nos. 804, 806). He requires relative motion, and is especially helped to retain in his mind the space traversed, by superficial sensations, and by vision which so clearly marks their confines. When these confines, having once been passed, are known, and further experience has revealed the fact that they can always be further extended, there immediately arises in the mind the thought that they may be passed again and again, indefinitely. Nay, in the concept of limit or termination of space, the immensity of space is virtually contained, as the condition is virtually contained, in the conditioned. Hence, by inference, the former may be deduced from the latter.

indistinct space of sensitive as well as of rational perception is innate. Moreover, the instinct of motion implies indeed the fundamental perception of indistinct, immeasurable space, but not the idea of distinct space. The reason is that this instinct is only the corporeal feeling having a space which is limited (though its outer confines are not felt), and tending to place itself in the most easy and pleasant attitude, and, by consequence, displaying its activity to transport itself into such new space as will answer the purpose of satisfying that tendency. Now it is clear that this new space cannot be felt until it has actually been reached. Then, but not before, will the animal feel it as distinct, *i.e.*, as occupied or occupiable, supposing that it has the means of preserving in itself the vestiges of the preceding space.

The space, therefore, originally annexed to the animate body is a space distinct because occupied; but it is not marked by any distinguishable confines, because there is as yet nothing corporeal felt outside of and, therefore, limiting the felt space. This latter space, therefore, absolutely speaking, is limited, but the animal has not the measure of it, because that measure implies a relation to another extended, and this relation is not found until the animal exercises its locomotive power and receives new sensions therefrom.

1134. Now, since pure space is immodifiable and immovable, it has no accidents, and therefore, though it may be correctly designated as a *being*, because its concept, after it has been acquired, is sufficient for itself and has no need of body, still, it cannot properly be called *substance* because the concept of substance is *relative* to other entities which exist in and by the being, that is, to accidents. Here again we see how gratuitous is the assertion that there are no other beings than substances and accidents, an assertion which belongs to a material and false Ontology.*

1135. That space is a being, and not a nullity, is seen merely by considering that, whether with or without the

* *Restoration*, &c., Bk. III, chap. xlvii.

corporeal force, it is a term of feeling. But since what changes is only this force, whereas space remains immovable, we must say that space is a being having only the first act whereby it is in the sentient principle and informs it as term; but that it has no other activity and no second act; for which reason it, of course, has no accidents. This is why some people, who recognise nothing as existent unless they see accidents and second acts, fall into the mistake of regarding space as a nullity.

However, when we look upon pure space or extension as the immediate term of a spirit, we consider it in the very act of its constitution, and hence with no other activity but that which it shows as the natural term of the sentient principle; whereas the concept of body (the extended) as term of the sentient principle, involves, besides, a passivity which the corporeal nature has with relation both to the spirit whose term it is, and to other external powers or forces which move and modify it independently of our spirits.

Hence, if, in order to obtain the concept of distinct space, viz., of some space, it is sufficient to abstract from body; in order to obtain the full concept of body, we require experience to show us that body is a being which acts in the spirit, and upon which the spirit reacts, modifying it, and, finally, upon which other foreign forces and powers likewise act, producing in it movements and modifications. From all these informations gathered from experience, we infer the character of that force which diffuses itself in extension and is called body.*

* These reflections serve to refute the error of the Cartesians who confounded *space* with *body*, making the essence of the latter consist in extension. They fell into this error from not being able to find any corporeal quality which appeared elsewhere than in extension, for which reason they considered extension as the *substratum* of corporeal accidents, the first thing conceived in bodies. But they did not reflect that the extension of bodies is not perceived distinct except by means of the sense, and that, therefore, it is never conceived alone, but along with extended sensations, in which a force is always perceived. Hence the force that acts in us is anterior, in the order of concepts, to the extension of bodies, and therefore extension is not the first thing that is conceived in them. There is conceived simultaneously the force as cause and the extension as effect, two things which, if they do not differ in time, differ, at least, in logical order. That the concept of extension is clear

ARTICLE III.

The Unity of Extension and of the Extended is derived from the Simplicity of the Sentient Animal Principle (the Soul).

1136. From what has been said we may now draw an important corollary, which is, that the unity which we find in extension and in the corporeal extended is constituted by the unity and simplicity of the sentient principle, that is, the soul.

In fact, the only unity discoverable in extension and beings extended consists in *continuity*. If we take away continuity, if we mentally break it up into smaller and smaller parts, space and body go on multiplying in the same proportion, and this multiplication has no end, because the continuous always remains. By this process, therefore, of division and multiplication *ad infinitum*, we never reach a space or a body without continuity, and to imagine such would be an absurdity. If, again, we remove the continuous all at once, and not bit by bit, all extension and all phenomenal body vanish.*

Now, we have seen that the continuity of the extended cannot be conceived except conditionally on a being which, while retaining its identity, is simultaneously present in all the assignable parts of the continuous; and this is what may be affirmed of the soul, when we consider the continuous as the unseparated and inseparable term of it.

1137. If, then, the only simplicity belonging to the material world consists in continuity, and if continuity has such a nature that it cannot be conceived independently of

and distinct, we agree with the Cartesians in affirming (on this subject may be read with profit Cardinal Gerdil's Work, *De l'Immatérialité de l'Ame, contre Locke)*; but this does not prove that extension is the substance of bodies.

* The truth that one of the properties of being is *simplicity* was known and taught by the Schoolmen, who laid it down as a principle that, "*Esse substantiale cujuslibet rei in indivisibli consistit,*" as St. Thomas says *(Sum. Theol.*, Pt. I, q. lxxvi, art. iv, ad. 4m). This means that where there is no simplicity, there is no being, because an accident is not properly a being, but an entity, that is, an appurtenance of a being.

a sentient principle, nay the conceiving of it in this way would involve contradiction; it follows that the simplicity and unity of the material world results from this essential condition and relation, that it is the term of the sentient animal principle, namely, of the sensitive soul.

1138. And here, I trust that those who have understood all this argument will not raise the objection that "the fact of bodies being either contiguous to or apart from each other is a condition of the bodies and not of feeling," since this objection would show that they have not considered,

1.° That immovable extension is the foundation of the continuous even in bodies, which are only forces diffused in extension, and this has its seat in the sentient principle;

2.° That the contiguity of bodies is nothing with respect to the single bodies themselves, none of which contains in itself the relation of nearness or contiguity to the others, so that this relation has nothing to do with the concepts of them, and is merely a relation which each of them has to the term of the sentient principle, that is, to immovable and immodifiable extension. Their contiguity, therefore, is a relation to the sentient principle, which feels them in the space whereby, as by its proper term, it is informed.

CHAPTER IV.

ESSENTIAL RELATIONS OF TEMPORAL BEING TO THE SENTIENT PRINCIPLE.

ARTICLE I.

Development of the Concept of Time.

1139. Given a being whose concept excludes the *possibility* of succession, that being is called eternal. Such are ideas,* such is the necessary being, God.

And be it observed that, in order that a being may deserve to be called eternal, it must not only exclude the fact of succession but even its possibility, so that to think succession in it would be equivalent to destroying it. Thus an immobile material atom is without succession, but it *might* have succession, because we might think of changes taking place in it without annihilating the concept of it. Therefore it is not an eternal thing.

1140. Succession implies change; hence, what is eternal is also unchangeable.

For the same reason, that which has begun to be, or even that which can without contradiction be thought as having begun to be, is not eternal; since, if a thing can begin to be, there is nothing to prevent us from thinking another thing beginning to be before or after it, or from thinking it as ending, after having begun. It is, therefore, at once possible to think that that thing is the term of a successive series, that it admits of succession. The same must be said also of space, which we can very well conceive as

* *New Essay*, vol. ii, 797-799. *Restoration*, &c., Bk. III, chaps. xxxix-liii.

having had a commencement, without thereby in any way involving its annihilation.

1141. Let us, therefore, carefully consider the concept of *succession*, since it is necessary to that of time.

Succession implies a series of events. Now these events do not, taken singly, form the succession or time, but taken all together they contribute to form it. If, then, time does not lie in the events taken each by itself, we are bound to say that it lies outside of the events, because every event is essentially singular and, in its singularity, complete, so that the concept of it neither requires nor has any *essential relation* to another event. Time, on the contrary, consists in the relation of several events to one another.

1142. Now, if this relation which constitutes time is not in the events, where is it?

We reply that this relation, *when realised*, is, in the first instance, in the *sentient principle*, which apprehends several events, and apprehends them as disposed in successive order.

This is a fact which cannot be ascertained except by internal observation; but, when we have ascertained it, we can analyze it and, by meditating on its nature, try to discover the conditions under which the sentient principle can apprehend several successive events, *e.g.*, several modifications of itself.

1143. In order that the sentient principle may apprehend as its term several successive events, it seems necessary that they, by remaining in it in some way, should render themselves contemporaneous. The reason of this is, that if one, after being apprehended, passed away entirely before another arrived, the single events would indeed appear in the sentient principle as they are in themselves, but the relation of succession between them would not be apprehended. It would not exist in the principle any more than in the events, and when thought supervened, it would find no succession.

1144. It is well to note, that thought takes things as

they are, as it receives them from feeling, and does not change them ; * hence succession, in order to be thought, must exist before thought, in feeling itself. What thought does is to conceive this succession as *possible*, and, as such, to render indefinite that finite succession which feeling presents to it. This it does through the idea of possibility, as we have elsewhere said.† Nevertheless, it always remains true that feeling must previously have presented to it, in its own reality, a finite succession. We shall understand this better, if we reflect that, without the aid of feelings to mark things in the idea of being, there would not even be memory. Indeed, it is certain that if all feeling should vanish from the intellective soul, all memory of events and real things would cease likewise, and there would remain before it only ideal being without determinations or differences of any kind, there being nothing to mark special and real things in it. All that could remain would be certain aptitudes, potentialities, habits of the soul, incapable of passing into act.

1145. But in order that we may see more clearly what part is played by thought and what by feeling in the constituting of time, we must investigate more closely the fact of memory, a faculty which belongs to the order of intelligence, and properly to the reason. Let us, therefore, here speak of memory. Memory has two principal functions, the one called *retention*, whose office it is to preserve knowledge, the other called *reminiscence*, whose office it is to recall knowledge to the reflective attention of the mind, when man requires it.

1146. We will not delay upon the second of these functions; but we must deal at some length with the first, which is either conscious or unconscious.

Unconscious retention is what the ancients called habit of memory, a habit whereby the cognitions we have acquired remain in us, without our giving reflex attention to them.

Conscious retention is that activity whereby a certain

* *Philosophical System*, 67-104; *Restoration*, &c., Bk. III, chap. xlvii.

† *New Essay*, vol. ii, 776-778.

cognition remains present to our reflection and consciousness, whether from our having recalled it through reminiscence, or having continuously reflected on it.

1147. We say, therefore, that a past event, in order to be present in our consciousness, requires,

1.° That a trace of the event shall have remained in the imagination or, in some way, in feeling. Now this trace is not the event of which we think, and which is already past, but it is a sort of *sign* of it;

2.° That there be further applied a special virtue of thought, whereby the mind is enabled to pass from the sign to the thing signified, that is to say, by means of the remaining trace, transport itself back to the event which no longer is, and so finish the act of thought in the past as in its term. Now this thing is not so easy to explain. We have explained it elsewhere, but for the sake of aiding the reader, we will here give a *résumé* of our explanation.

1148. In the first place, let it be borne in mind that the mere notion of an event is neither past nor future: it is present in the idea. This notion, therefore, gives us no knowledge of the event save in its nature and possibility. So far there is no question of time, because time is a relation proper to real things and not to ideas. But for the very reason that the notion or possibility of the event is free from all time, it may be applied to any time. I may think of the event as *possibly* having happened or as *possibly* going to happen. We must, therefore, inquire how man passes from the knowledge of an event as possible to that of the same event as real and therefore, of course, situated at a given point of time. Now, *real being* is cognised only through feeling; which, again, is a manifest proof of the necessity of feeling in order that the time of an event may be thought.

1149. But the feeling of the perception whereby one was present at the event in question ceases—

True; but we must observe that perception is formed by means of a judgment, and being, further, accompanied by several reflections, as happens in the full grown man, it

is accompanied by several judgments. These judgments cause man to know several things about the event. Let us see what these judgments and these cognitions are.

The judgment proper to perception is to the effect that the event, the fact, the being of which there is question, subsists. Man thus acquires the knowledge of the subsistence of that entity, under which word I embrace every being, event, fact, action.

This judgment is accompanied by many others, which determine the entity by the relations of contemporaneity in which it stands to other entities. The fact is, that entity is not perceived alone. Along with it are perceived many others which surround it and co-exist with it. This circumstance conveys to man other cognitions, *i.e.*, as many cognitions as are the judgments whereby it has affirmed that the entity in question co-exists with some other or others.

Moreover; among the entities co-existing with that particular one, some began after it had begun, or else they had begun before, and were continuing when it began. Other entities ended before it, or continued after it ceased. In the act of perception, therefore, or to speak more correctly, of the many contemporaneous perceptions, and the reflex judgments which accompany them, the human spirit acquires the knowledge of the chronological order in which the contemporaneous entities *began*. Now, since life is a continuous series of perceptions and reflections, of judgments and chronological cognitions, it follows that, as these cognitions remain in the spirit, this comes to know the chronological order of the entities or events perceived. Thus the whole difficulty reduces itself to explaining how these cognitions are preserved in the spirit, because, given that they are preserved, the spirit, by that very fact, knows which preceded and which followed, and whether a given event had many or few events before it. In other words, it knows succession and time, and gradually learns to measure it more or less accurately by means of periodicity. We see, therefore, how the chronological cognitions and

the events which fall within our knowledge on occasion of contemporaneous perceptions are preserved. I say "contemporaneous perceptions," because it is always a contemporaneous event that marks the beginning and end of another. This latter again marks the beginning and end of events contemporary with itself, and so on successively.

What then are these chronological cognitions? They are so many affirmations, judgments, persuasions. Now, what is an affirmation? An act of the rational principle. If this act never ceased, the knowledge which it produces in the spirit would, as a consequence, likewise never cease, but would always be present to the spirit, for example, the knowledge that before the sun set, a friend from a distance came to us. If the affirmation which we pronounced when the friend came to us always remained in act, it would likewise always remain present to our spirits. Be it observed that, on this supposition of the immobile presence of this knowledge before our spirits, the object of the knowledge would never vary through lapse of time; it would always remain the same. We should always know equally what we knew when we first pronounced the judgment: "That friend arrived before sunset." These two events, the arrival of the friend and the setting of the sun, would in this cognition always be arranged in that order. This is, therefore, a most important fact to bear in mind; the object of a cognition does not, while that cognition endures, change with the lapse of time, but remains always the same. In the case just named, it is always a matter of friend and sunset, even though centuries should pass. Now this identity of the object of a cognition is preserved not only on the hypothesis that that cognition remains permanently present to our spirit, but also if, after it has ceased, we can recall it to thought: for, although it is true that our spirit in turning anew its thought to the said cognition, would perform a fresh act different from the first; yet the object of this fresh act would be identical with that of the old one which had ceased, and the identity of the object is what constitutes the identity of the know-

ledge. This applies not only to chronological cognitions, but to all cognitions indiscriminately. If I think a thousand times of this truth, "Two and two make four," I perform a thousand different acts; but the object of all these acts is always the same and, therefore, the knowledge is identical. If I think a thousand times that Alexander the son of Philip existed, I again perform a thousand acts, but the object is always the same: with each of the acts I think the same Alexander and the same Philip, and that the one was father and the other son. The multiplicity of my acts does not multiply the objects. This, therefore, holds good, whether the object of the knowledge is a necessary truth, as for instance that "Two and two make four," or a contingent fact, like that of the existence of Alexander, the son of Philip. This means that the objects of our knowledge are free from time, because neither the time that elapses, nor the succession of the events alters them. But be it noted, they are free from time as objects of knowledge, not in themselves. The contingent is subject to time, and, in fact, between Philip and Alexander there was succession and, hence, time. We must, therefore, conclude that thought apprehends time, but not temporally. It apprehends that which is temporal, but outside of time, just as we have seen that the extended is apprehended by our spirit in an unextended way. If, therefore, the object of cognition is temporal, and yet, in so far as it is the object of a cognition, it is not subject to time, so that the spirit apprehends it outside of time, where does it apprehend it? We must needs concede, that the spirit apprehends time and the temporal in the eternal, because, as we have seen, when the possibility of time is excluded, there remains only eternity.

1150. We shall understand how this is, if we reflect that in *ideal being*, which is necessary and eternal, we see (feeling being, of course, presupposed) also the contingent and the successive, and reality itself as possible, *i.e.*, capable of subsisting (idea of reality): and when we pronounce that this reality is actually subsistent, we do so

purely and simply in virtue of an affirmation which unites said reality with the essence we find actuated in it. Hence, however often we may pronounce such subsistence, we always pronounce the reality of the same essence and, therefore, always the same identical thing. In this way it becomes clear that thought, judgment, affirmation, do not by repetition change their object, but seize it and place it before the mind in an eternal and immutable manner.

1151. It will be remembered that here we have introduced two hypotheses, the first, that the judgment which produces in us the chronological cognition of beings on occasion of our successive perceptions, leaves behind some trace of this cognition as a deposit in our spirit; the other, that the spirit reproduces it, after it has disappeared. From both these hypotheses we have concluded alike that when the succession of several beings is once known, it may be known equally many times, without this being at all interfered with by the lapse of time. But in order that we may not leave behind anything of a nature to disturb the minds of those who may follow us in these researches, we will now ask: "Which of the two hypotheses is in accordance with fact?" The second is commonly preferred, because experience shows that many cognitions are forgotten, and afterwards brought back to recollection; which seems to indicate that they are not continuously preserved in us. Nevertheless, this hypothesis is open to serious difficulties. In the first place, if those cognitions were not preserved, at least in a faint way, it would be impossible to explain how they were recalled. Indeed, where and how could we find them, if they were lost? It cannot be replied that we find them through their association with other, present, cognitions; since if they are altogether lost, that association cannot exist. Nor, again, can we find them by a play of instinct, because instinct, being only the movement of the sense, supposes sense, and therefore supposes the cognitions as preserved in some way in our feeling. Besides, they are frequently recalled, not instinctively, but by a decree of the will and at pleasure.

On the other hand, it is perfectly certain that we lose *consciousness* of those cognitions, and again recover it. All these difficulties vanish from him who knows the theory of consciousness. He will readily understand how acquired cognitions can remain in our spirits, present, actual, living, and yet devoid of all consciousness. It has already been shown by us that "no act of the intelligent spirit is known to itself," because an intellectual act is always directed to knowing its object and never to knowing itself. A second act, reflected upon the first, is, therefore, necessary, an act whereby the first act may become an object, and thus we may be said to know, and to know that we know. We must, therefore, adhere to the first hypothesis and say that, in order to render ourselves conscious of a cognition, it is not enough for us to have had it once, but we must furthermore have preserved it in us all along. It is not, therefore, absurd to affirm that cognitions once received into the spirit always remain there, and that what ceases is the *attention** which the spirit directs to them, and *reflection*—two acts without which there is no consciousness of anything that is in our spirit.

1152. Let us now resume the course of our reasoning. Thought knows succession in a manner into which no succession enters; but this only on condition that succession has once been offered to it in perception, and in the reflex judgments which take place along therewith. Now, we have said that perception and the accompanying judgments present succession to thought because during the perception of one entity others are perceived that begin or end, and these perceptions succeed each other, gradually leaving in the spirit the chronological cognitions of events. But all this implies the *duration* of the perception. Indeed, we could not conceive succession in events, if there were not a certain duration between each of them. Now duration implies that which endures, for example, the perception

* *Attention* is the activity of the intelligent subject. Without attention, the subject receives but does not operate, that is, has not yet come forth into a second act. The primitive intuition is a *receptive act*, not an *actuated act*.

itself. Duration belongs to that which exists, while on the other hand nothing can exist only for an instant, since that has no duration. The instant is but the beginning and the ending of duration. Therefore, the succession of events, that is, of their beginnings and endings implies the duration of a being, in which duration, as in a thermometer, all the instants at which the events that change and succeed each other in it are marked. Time, therefore, in itself may be defined as "the relation between *duration* and *succession*." But the concepts of duration and succession are correlatives, so that the one can neither be known nor exist without the other. Indeed, as there is no succession, unless between one event and another (which always involves a beginning and an ending) there be some duration, so duration cannot be understood except through the *possibility* of there being a certain succession of events to refer it to.*

1153. We must, therefore, proceed to consider what is *duration:* first, the duration of thought; then the duration of intellective perception; then that of feeling, and, finally, that of material being. When our understanding, in this meditation, shall be satisfied, then the nature of time will be sufficiently explained for us.

The duration of thought consists in the identity of the object thought of. We have seen that every object of intellective cognition, as such, is immutable, so that when thought turns to another object, it is at once another thought, different from the previous one. But so long as the spirit does not turn to another object, the object being immutable, the thought likewise remains immutable. Since, then, the object which determines a given thought to be what it is never fails, because the object of a cognition is eternal, and since thought is possible every time that there is the object, it follows that the duration of

* The concept of *duration*, therefore, springs from the concept of eternity considered in relation to a possible succession. Hence, when we say that God endures, or that an idea endures, we indicate a relation of opposition in which the being of God or of the idea stands to contingent things subject to succession. In Himself God does not *endure*, but *is*.

thought is a participation in the eternity of its object. At the same time, owing to the *limitation* of the thinking subject, the act of thought ceases and ends, although the being which was its object remains; and this ceasing is precisely the instant in which its duration ends.

1154. Now the knowledge that one event preceded another is received by the spirit through perception. How, then, is the duration of perception explained? Perception cannot endure unless the feeling to which it refers endures;* nor can the feeling endure unless both the sentient being and the felt being endure. We must, therefore, explain the duration of felt being, the object of perception. How is the duration of beings explained?

1155. The subsistence of a contingent being is simply the realization of its idea. This realization is effected by the first cause of things, is, in fact, creation. Now the Supreme Cause is necessary and eternal, as also is the *idea*. The way in which the Supreme Cause creates or realizes contingent beings is through understanding. In other words, creation is an act of God's practical reason, of His operating thought. God causes things to subsist by an act analogous to that whereby man thinks them as subsistent. The thought of man, as we have seen, on the side of the known object (even when contingent) or of the *knowledge* gained, is immutable and eternal; but it ceases through the deficiency of the thinking subject. On the other hand, the immediate object of God's thought is likewise eternal; but equally eternal and unfailing is the thinking subject, that is, God Himself. Hence created

* In regard to the duration of perception, let the reader observe, 1.° That some element of it may endure while the others change, and this suffices to give a duration to which to refer the changes. For example, in the perception of the sun, although the accidents of light may change, the sun perceived is always the same at all hours of the day, or is considered such; 2.° That the renewal of a perception, the object remaining identical, supplies for its continuation. For example, although we do not keep our eyes all day immovably fixed upon the sun, and may even close them for some time, still each time that we again perceive the sun, we consider our perception to be the same, inasmuch as it has the same object, and the knowledge given us by it remains identical; 3.° That what remains identical in every enduring perception is always the *being*. The actions and passions of the being change, and it is just these that give the *succession* which is referred to the *duration* presented by the being itself.

things can endure at God's will; and this will, in fact, is without repentance. Hence the beings once created endure to all eternity, because they are the work of God. On the contrary, their actions and passions, having for their subject and proximate cause the contingent and deficient beings themselves, cease. They begin, end, begin again, with an incessant vicissitude and succession.

The outcome of this is, that *duration* is a participation of the eternity of God, and *succession* the effect of the limitation and deficiency of creatures. Now time is precisely this succession, referred to and, as it were, marked in degrees upon that duration.

1156. Thus we can see clearly how entities *endure* and *succeed each other*, and how their duration is measured by number, or by the series of the successive actions of beings.*

ARTICLE II.

Time is not in Material Things.

1157. Having thus explained the nature of time, we now return to our original questions, which were: Is there time in material things? Is there time in feeling? Is it only thought that forms time?

From what has been said it is manifest that time cannot be in material things, because their unity and, therefore, their duration, is due to the sentient principle in which they are, and not to themselves. For this reason the relation between succession and duration is not a thing that can exist in any assignable part of matter, as matter, because there is no part without continuous extension, and this does not belong to matter, as matter.

1158. Besides, when we set aside those phenomenal changes which appear in matter by reason of its relation to the sentient principle, and take matter in its pure concept, we can conceive no change as possible in it except that of

* In order to find the *unity* of these actions, it is necessary that they should all be made equal, that is, of the same intensity, as we have explained in the *New Essay*, vol. ii, 764-797, to which we refer the reader.

motion, which is a relation to space. But space, the continuous, does not belong to matter considered by itself; hence, in matter, as purely such, it is impossible to conceive changes and, consequently, succession.

1159. Moreover, matter has no multiplicity, for every portion of matter is one, and remains one, ending in itself, without being able to add to itself another portion, from which its existence is entirely separate and its reality entirely distinct.

1160. Of course, if in the material being there were a simple principle, this principle might contain in itself a certain succession of developments, which succession would have a physical *nexus* with the immutable and enduring principle of that being; and in this case time would in a certain way be realised in it; but when corporeal matter is considered apart from feeling, which does not belong to its concept, it has no longer, we repeat, either simplicity or unity. If, on the other hand, we admit a *corporeal principle*, this can be neither body nor matter, since it is their principle, and, therefore, even if it did contain time, the merely material being would not yet contain the same.

ARTICLE III.

There is time in Simple Beings subject to modifications, such as the Sentient Principle.

1161. Let us return, then, to sensitive being, in which there is a simple principle, the source of different sensions and modifications, activities and passivities. Herein we conceive a *duration* belonging to the said principle, which remains always the same; we likewise conceive *succession* in its particular sensions; finally, we conceive a physical *nexus* between the duration of the principle and the succession of its passions and actions, inasmuch as these are virtually contained in the principle, and, given certain conditions, flow from it and belong to it as their subject. Now these three elements—*duration*, *succession* and *nexus* between the

two—complete the concept of time. Time, therefore, exists in the nature of feeling. But, when one tries to explain all this, the mind meets with difficult knots, and it is a wonder if it does not stagger and feel lost.

1162. It will be well to touch here upon these difficulties, because, if they were passed over, our reasoning could not produce full persuasion of the truth.

The transient and successive acts of a sentient principle, when they cease, either leave behind them a trace in the principle itself, or they do not. If they leave no trace, there cannot remain in the principle any succession of acts in a contemporaneous mode, as is necessary in order that time may exist. For, as we have seen, time implies succession, and there is no succession unless it can exist all together and, therefore, contemporaneously, viz., unless there is something to join its links in unity. If, on the other hand, the successive acts, in passing, leave traces of themselves in the sentient principle, these traces are not the acts themselves; hence what the sentient principle preserves in itself would not be the succession of the acts, but the succession of their traces; and time would have to be created by means of these. But what is this succession of traces? It certainly is not their duration, because in simple duration there is no succession. To say that the traces come in succession is simply the same as to say that they begin and, in case they should end, terminate one after the other; whereas our supposition now is that they remain permanent. Now the beginning of every trace disappears in an instant and leaves not a vestige behind. The trace that endures remains, but the instant of its beginning does not remain. If, then, the fact of the traces beginning one after the other, which is what forms succession, gives only a series of instants the preceding one of which no longer is when the subsequent one comes, we must conclude that the succession does not remain and is not gathered in by a being having it present to itself. Indeed, the sentient principle does not and cannot retain the different beginnings of its traces, since owing to their

essentially instantaneous nature they vanish as quickly as they come. Hence there is the same difficulty in understanding how the sentient principle can collect in itself the succession of the vestiges left by its acts, as there is in understanding how it can collect and preserve in itself the succession of its transient acts. We must, therefore, look for another way of overcoming this difficulty.

1163. It will be found by meditating on the nature of *duration*. The concept which we have given of duration is that it is "a participation of eternity." As ideal being is altogether free from time, so also its realisation partakes of the same freedom (although it can do so only in a limited way), and this is duration. Duration, therefore, implies *identity*. As the essence of a being is always the same in whatever instant it is considered, so a real being characterised by simplicity is likewise always the same in whatever instant it acts or suffers. It follows from this, that the sentient principle which performs one act is the identical one that performs all the succeeding acts. Being identical, it is necessarily present to all the acts which it performs: it is therefore present to the whole succession, without being itself subject to succession, or being a link in it. By looking at the sentient principle in this light, we see clearly how it can collect in itself the whole succession of its acts, as well as that of the vestiges which these leave in it, notwithstanding that the terms of the succession of the acts and vestiges pass away, so that the one is not present to the other, as would be necessary in order to form a succession. It must, therefore, be admitted that the sentient principle is outside of time, otherwise it could not receive into itself succession and so bring time into existence. Hence we must repeat that time can exist only in that which has no time, namely, exist in it as its term. The whole difficulty, therefore, resolves itself here also into our being able mentally to persuade ourselves that the sentient principle (like every other being which is simple) is not subject to time, but is, properly speaking, in eternity, or, as I am wont to say, belongs to the metaphysical world.

1164. All this reasoning is, I believe, irrefragable, unless any one should wish to deny the *duration* of the sentient principle, that is, its *identity* in its successive acts.

Supposing then that it is impugned, it will be our duty to defend it; and if we can succeed in establishing it by invincible arguments, our conclusion will then be rendered secure. Here I have to bespeak the very special attention of the reader.

The first proof which I shall adduce of the identical duration of the sentient principle is that which demonstrates in general the necessity of the duration of beings. Let us assume that a being had no duration: plainly, it would not exist at all, because purely instantaneous existence is in itself absurd, an instant being only the beginning or the end of a duration. But if a being endures however so little, it must, while it endures, be identical, otherwise it would have no duration, and there would be merely a succession of similar beings, each of which would be for an instant. This, we repeat, is manifestly absurd to think of, because none of these beings would be, since in the very instant in which it was, it ceased, was not. Now was and was not make a contradiction. Moreover, those beings could never form a succession, because between one and another there would be no duration, since, as we said, there cannot be duration, without, at least, the possibility of an enduring being.

1165. A second and special proof of the duration of the sentient principle is derived from this fact, that the successive acts of an animal are very often arranged in order, which shows that there is an identity in the cause which produces them, viz., animal instinct. Indeed, if there were not an identical cause for them all, but a different one for each, a different sentient principle producing each, there would no longer be any reason for the order existing among them and for the unicity of the aim to which they very often tend. Indeed, each principle would be able to perform but a single act, which would have no connection with the others. It would then be necessary to have re-

course either to a pre-established harmony, or to the immediate action of God Himself, in order to explain the actions and passions of the animal; and this cannot be admitted on account of the innumerable absurdities that would follow from such hypotheses.

1166. A third proof is, that, if beings did not remain identical, all new actions of beings would at once become impossible, because action is a second act which supposes the first act, that of existence, and, therefore, supposes at least two instants with an interval of some duration, without which they would not be two.

1167. The fourth and last proof is found in man himself, whose consciousness testifies to the identity of the sentient principle with respect to its acts. Now, since the reflection of thought does not, as we have already shown, alter the being of things, but merely makes them known as they are, it follows that it is a trustworthy witness to the fact that the sentient principle endures numerically the same.

It is not, therefore, absurd to think that the sentient principle has *duration*, that is, remains identical with respect to all its successive acts. On the contrary, there is every reason for admitting it. Now, in this enduring principle is generated that relation which afterwards is called *time*.

ARTICLE IV.

The Unity found in Succession is due to the Sentient Principle.

1168. From all the above we may conclude that the unity found in the *succession* of acts, modifications, passions, beginnings, and endings is due to a simple principle which has duration, in other words, is identically present to all the terms of that succession. If this were not so, there would be the single links, but never succession, and, therefore, no time; and even the links would not have the nature of links.

ARTICLE V.

On Time considered in the Rational Principle.

1169. Inasmuch as the rational principle is, like the purely sentient one, a simple being, performing many successive acts of which it is the identically enduring cause and subject, we are clearly bound to say, that this principle also has in it all the conditions requisite for the existence of time.

1170. We must therefore conclude:

1.° That if space and the extended receive their unity from the *sentient-animal* principle; succession, time and the temporal receive their unity from a sentient principle of any kind, whether animal or rational;

2.° That space gives a concept which follows from that of *animal being;* whereas time follows purely and simply from *real being*, as soon as this becomes subject to mutations, because it is to the being that *identity*, or *duration* throughout all the permutations which take place in it, belongs;

3.° That the concept of time is not found either in that of pure space, or in that of matter, in which we may indeed think duration, but not succession, and, hence, not the relation between duration and succession.

ARTICLE VI.

On Real Time, Real Time Known, and Ideal Time.

1171. Hence, it is necessary to distinguish:

1.° *Real time*, that is, time in so far as it exists really in the *nexus* between an identical principle and the succession of its modifications;

2.° *Real time known*, by which is meant time present to the thought that apprehends it;

3.° *Ideal time*, which is the concept or mere possibility of a *nexus* between duration and succession.

CHAPTER V.

ESSENTIAL RELATION BETWEEN FEELING AND THE IDEA.

1172. We must now show how the rational principle conjoins and unifies the idea with feeling.

Since, however, feeling is of three kinds, animal, intellective and rational, we must show how each of these severally may be joined with the idea.

Moreover, in feeling there are two elements, the sentient and the felt, each of which may be known in the idea.

We will, therefore, divide the questions thus:

1.° How are the felt extended and succession perceived by the intellective principle, which thence takes the name of rational?

2.° How is the sentient animal principle intellectively perceived?

3.° How are the intellectual principle, whose term is the idea itself, and the rational principle, perceived?

4.° How are the different affections of the rational principle perceived?

ARTICLE I.

How the Felt Extended and the Succession of Events are perceived by the Intellective Principle, which thence takes the name of Rational.

1173. We have seen that extension and the extended not only do not communicate with the sentient principle by way of extension, that is, in the way that one extended being might, in a sense, be contained in another, but moreover that, if extension and the extended had only this property of extension, they could have no *nexus* with the sentient principle, which is unextended. But extension

and the extended are also sensible, and therefore, through the *relation of sensility* they are received into, and contained in, the sentient principle. This relation, therefore, is produced by the very nature and activity of the sentient principle, which nature is such that the principle unites itself to things appropriated by it through feeling. In this way it renders what is *extended* also *felt.*

1174. This *relation of sensility* is higher than the relation of *extension.* Now as a higher entity, having more degrees of beingness, embraces the lower entity having fewer, and, embracing it, ennobles it by communicating to it something of its own, so the concept of *extended* is embraced and contained in the concept of *felt,* and not *vice versa;* and the extended itself, becoming felt, or being considered as such, rises a step higher in the scale of beingness.

1175. Now, highest of all entities is *being* itself, the object of the intelligence; hence the concept of being embraces all inferior entities, whatever may be their own grades of being.

Hence things place themselves in conjunction with the understanding by an *essential relation of entity.*

1176. But things cannot be perceived by the understanding if they have not beforehand the condition and relation of [things] *felt,** because man perceives intellectively only what falls within his feeling.†

Consequently the extended is in the felt, and the felt is in the being intuited by the understanding. We must remember that ideal being contains *possible reality,* that is to say, the essence of real things; hence, when a felt extended is placed before the principle which intuites being, this principle must see it in being, and as partaking of being, and thus perceive it, as we have already explained more at length.

1177. Now when the principle that intuites being sees

* *Theodicy,* no. 153.

† The knowledge of what is in our feeling, and which we acquire through intellective perception, is called *positive knowledge,* whereas the knowledge of beings that are not perceived but are reached by inference from things perceived, is called *negative.* Into both feeling enters either as the *matter* or as the *means* of knowledge, inasmuch as it serves as a fulcrum for the action of the reason.

also the entity participated in by the felt, then, instead of being simply intellective, it begins to be what is called rational.

The *rational principle*, therefore, perceives the felt in its quality of being; in other words, it unites what it sees in the idea (*i.e.*, being) with what it feels, and thus the felt becomes *a being*, an object to the intelligence.

1178. If, on the contrary, no intelligence perceived the felt, this felt would not have the concept of being, but merely of felt, because it receives the concept of being only from its relation to the essence of being, which essence dwells in the Supreme Mind and in all the inferior minds to which the Supreme Mind communicates it, thus creating them.

I call this relation *essential* precisely because it goes to constitute the felt-extended as a being. In doing this, it imparts to it a higher degree of entity, and, indeed, gives it that last act in which it is what it is. It is, therefore, in the mind that the felt being exists as a being; but he who speaks of it is right in attributing the character of being to itself, because we speak of things only as they are in our mind; and the thing itself which is in the mind is a being, and a being substantially different from the mind which, in positing it, perceives it.

1179. That same simplicity in virtue of which the idea and the knowledge gained are exempt from time, enables us also to explain how the mind can conceive successive events, past and future, as we have seen.*

* Here it will not be amiss to turn our attention again to D'Alembert's question, which put philosophers in such a fright at the end of the last century: "What is the bridge of communication between the spirit and external bodies?" We have solved it by showing its absurdity, in so far as it relates to the spirit as a sentient principle (1127), because the sentient principle communicates with the felt, not through a relation of extension, but through a simple relation of *sensility*. Here we solve it in a similar way in so far as it relates to the spirit as an intelligent principle, by showing that the intelligence does not communicate with bodies through a relation of extension, but through a *relation of entity*, which is a simple relation. Thus the question is entirely solved in both directions, because bodies are perceived, not in one way only, but in two ways, namely, sensitively and intellectively. Hence it is seen that the question was stated imperfectly, in that it supposed the spirit to communicate with bodies in one way only. This imperfection arose from sensism, in which sense and intellect are confounded into one power.

ARTICLE II.

How the Sentient-Animal Principle is Intellectively Perceived.

1180. It was necessary here to indicate this question, because the aim of the present discussion is to show how the rational principle gives unity to all human acts.

But the question has already been solved by us, and it will be sufficient here to sum up the reply and say, that it is *reflection*, which turning upon the felt being finds that there must exist in it a sentient principle for the reason stated, that the felt extended would not have that unity which it has, if it did not contain any sentient principle.

But are we not also sentient principles? Does not consciousness tell us that we are?

ARTICLE III.

How the Intellectual Principle, whose Term is the Idea, and the Rational Principle are Intellectively Perceived.

1181. Yes, consciousness unquestionably tells us that in us there are a sentient principle, an intellective principle, and a rational principle in which the other two are united. Now consciousness is a *reflection* upon our own feeling.

But our own feeling is known immediately through perception, without any need of reflection (71-80)—

True; but it is one thing to perceive our own feeling, and another to distinguish in it—I mean distinguish accurately—its *principle* from its *term*. We perceive this principle in feeling; but in order to obtain a separate and distinct concept of it, we must have recourse to reflection.

Now, reflection finds it precisely by considering the nature of feeling. The whole question therefore resolves

Moreover, the question proposed by the learned mathematician made no allusion to time, although there was just the same difficulty in explaining how our spirit perceives the extended, as there was in explaining how it perceives the past and the future. Those readers who have clearly understood that the idea and the knowledge gained are exempt from space and time, will have also understood how the mind can know the extended, and embrace all times.

itself into showing what is the nature of reflection and how it proceeds.

1182. Reflection may be defined as "the faculty of applying the idea of being to our cognitions and their objects."* Now in order to explain this operation of our spirit, we must carefully consider the nature of the idea of being, which is the means both of *perception* and of *reflection.* The difficulty which presents itself is this:

"If, in perceiving a being, I have used the idea of being, uniting it with the felt, how can I again, after that, apply the same idea of being to perception and its object, and from this new application (which is exactly reflection) draw new cognitions?"

The reply must be sought in an accurate observation of the fact. This fact, when attentively observed, shows us that the thing happens exactly in this way: we may, therefore, conclude without further ado, that it *can* take place in this way. The idea of being may always be applied by the mind either to itself, or to any cognition whatever, in which indeed it is already contained. This wonderful fact cannot be denied or impugned; but it may be analyzed, and valuable consequences may be drawn from it, enabling us better to know the nature of the idea itself (570). These consequences are the following:

1.° If the idea of being, however often we tie it up in perception, still remains free, so that we can use it afresh, apply it afresh to the perception which already contains it; we must conclude that it is entirely free from *passivity*, and that when we see in it any thing, we do not properly bind it up in that thing, do not narrow it down to that thing so that it is not fully as ready as before for our needs and uses.

1183. 2.° The fact that we can always use the idea of being as if it were free and we were using it for the first time, shows that it is present, identically the same, to all the acts of our spirit, to perception, reflection, &c. Again, the fact that it is present in its identity to many acts

* *Philosophical System*, 69, 77, 82-87, 104.

proves that it is *simple*, and, as simple, stands opposed to the manifold and collects it in itself. In like manner, the fact that it is present to many successive acts of the spirit shows that it is not subject to time—that it is *eternal*, as we said above. Indeed, this is the property of the eternal, that "it is, its identical self, present to many successive entities." Now, when I intuite being, it is present to the intuiting spirit; when I reflect upon the being intuited by me, then the same being is present to the act of my reflection. The same identical being, therefore, is present as object to the first act of the spirit and to the second—to intuition and to reflection. The being is one, but it has relation to two acts. In so far as it has relation to the intuitive act, it presents itself to the spirit without any distinctions: in so far as it has relation to the reflex act, it presents itself to the spirit with those distinctions and conditions which analysis and synthesis (two modes of operation belonging to reflection) find in it. Its showing itself in the second way, does not interfere with its having shown itself in the first. It is, therefore, in the *simplicity* and *eternity* of being that reflection finds its explanation: without these, it would be impossible.

1184. 3.° What is known by means of *reflection* is different from what is known by means either of *intuition* or of *perception*, that is, it is known in a different mode, in different degrees, &c. Hence, in reflection, being does nothing else than communicate to the spirit a greater knowledge of itself, or a knowledge of a different kind. The *knowledge* of the spirit must, therefore, be distinguished from the *idea* of *being* considered in itself, which produces that knowledge. The said knowledge has in it something limited and subjective; being is unlimited and entirely objective, or, to speak more correctly, object. This object is always in all *cognitions*, whether we have them through intuition, or through perception, or through reasoning, that is, reflection; but it occurs in these various cognitions in different forms.*

* Ideal being, as we have explained it, is of its own nature simple and eternal, so that it is identically present to all intellects and to all the acts of each in-

1185. 4.° From the same fact we draw confirmation of the truth that being is, so to speak, lent to finite things, owing, on the one hand, to the necessity which we have of knowing them, and, on the other, the impossibility of knowing them if they have not first become beings, that is, if they are not coupled by the mind with being. The essence of being, therefore, is not confounded or identified with sensible realities, but only wedded to them in order to render them intelligible. This truth strikes at the very root of Pantheism, because it shows us that so long as there is question of finite things, the essence which is seen in the idea always remains inconfusable with the reality; and this is a most important corollary.

1186. It is no wonder, therefore, if, after having intellectually perceived the animal felt [term], we are able to apply to it the idea of being, and so, by reflection, to draw from

tellect. Hence, however often our spirit may use it and, so to speak, bind it through perception to certain feelings or to certain acts, it, nevertheless, as intuited in itself, remains free and ready to be used afresh, in such a way that, without ever multiplying itself, it can be applied by the spirit to itself and to all the cognitions which the spirit acquires by means of it. When all this has been clearly understood, or its truth has been distinctly recognised by way of contemplative observation, it will be found very easy to reply to the objection which Plato places in the mouth of Parmenides, in the dialogue named after this great Italian philosopher. Socrates having laid it down that *species* are distinct from and shared in by *individuals*, and that while the individuals of a species are *many*, the species is *one only;* Parmenides, who wished to exclude multiplicity and reduce everything to unity says: "I think you deem each species to be one for this reason, that when you see, let us say, several great things, to you who contemplate them all, there appears perhaps a kind of single idea, whence you are induced to look upon the great itself (greatness) as one." Here Parmenides hits the truth, because it is the oneness of the *idea* that unifies the species or essence of several similar individuals, since these are only different realizations of the same idea. But directly after he makes to Socrates the objection that, if this were the case, the species would have to be multiplied *ad infinitum.* He says: "If with your mind you consider in exactly the same way the great itself (greatness) and the other things that are great, will there not appear to be necessary another great (greatness) whereby all these great things may be seen?"—S. "It seems so."—P. "There will, then, have to be a further species of greatness, besides greatness itself and the things which partake of it; and in each of these things still another greatness, whereby each of them is great, and, therefore, each species will no longer be one but rather infinitely numerous." The difficulty is solved at once, if we consider that the idea of greatness may be applied to itself without losing its identity or unity, so that, although we compare at will greatness with great things, and as it were measure these things by it, we do not on that account require any new idea of greatness, but the one whereby we conceive greatness and great things separately is quite sufficient for the purpose. The objection, nevertheless, was ingenious, and shows how acutely those Ancients thought.

it the concept of the sentient principle. This operation may be resolved into the following reasoning: "The felt is a continuous extended: but this entity could not be unless there were a principle in which it inhered. I arrive at this truth by confronting the felt extended with *being*, which I attribute to it; for, knowing by nature what being is, I know that it can never clash with itself, in other words, the *principle of cognition* shows me that *being* cannot *not be*. But the felt-extended would not be felt-extended, unless it had a simple principle; therefore," &c.

It is no wonder, likewise, if, after having intuited the idea, we are able, by applying being in a similar way to intuition, to draw from it the concept of the intuiting principle. We may, in fact, say: "This idea is intuited; but it could not be intuited, if there were not an intuiting principle. Since, then, that which is intuited cannot be non-intuited, I must of necessity admit an intuiting principle."

Finally, it is no wonder, if reflecting upon the felt-extended intellectively perceived by us, we discover that there must necessarily be in us the rational principle; because, if there were not in us this principle, it would not be true that we had intellectively perceived the felt-extended. But, by the nature of being (naturally known to us), the same thing cannot be true and not true at the same time; therefore the rational principle exists.

If here it were urged that one could also reach the affirmation of the existence of the sentient, intellective and rational principles by means of simple abstraction, or of analysis, I would reply that these operations themselves take place, as I have shown elsewhere, through a secret and rapid application of the idea of being.*

* *New Essay*, vol. iii, 1454, 1455.

CHAPTER VI.

MAN'S UNITY AND, THEREFORE, HIS NATURE LIES IN THE RATIONAL PRINCIPLE.

1187. From what has been said we may conclude:

1.° That the sentient-animal principle relates only to the extended;

2.° That the intellective principle relates only to the idea;

3.° That the rational principle, by means of perception and reflection, relates equally to the felt extended, to the idea, to the sentient principle, to the intellective principle, and finally to itself, so that it is what binds together and embraces all that is in man, and extends to everything;

4.° That, by consequence, the unity of man lies in the rational principle;

5.° Finally, that, inasmuch as man is man only in so far as he is a single being, he is such in virtue of the rational principle. In this principle, therefore, as in its proper seat, human nature finds its proper and adequate completion.

CHAPTER VII.

EVERY HUMAN ACTIVITY STARTS FROM THE RATIONAL PRINCIPLE.

1188. Having thus summed up the theory of human nature and seen how it is completed in the rational principle, wherein lies the unity of man, we must now turn our attention to the activity which flows from the human principle, and investigate and study its laws.

In the first place, however, we must eliminate from our question those activities which mix themselves up with the human activity, but are not itself. To confound them with it would be to entangle our reasonings, and the confusion of concepts would necessarily lead to error.

ARTICLE I.

Five Activities Manifest themselves in the Human Being.

1189. It follows from what we have already said that five activities manifest themselves in man, of which only one properly belongs to him ; for,—

1.° We have recognised the existence of extension as the term of the sentient-animal principle, a term which lies in this principle as in its seat, but is not the principle itself. This activity, nevertheless, is immanent and does not produce second acts ; for which reason it has not the nature of substance, but only that of entity. We have not investigated its cause ; but have contented ourselves with observing that it has an *essential relation* with a sentient principle, so that to attempt to think it without this principle would be to attempt an absurdity.

1190. 2.° We have recognised the existence of a corporeal activity that manifests itself in extension, and in this becomes the term of the sentient-animal principle. In so far as it is extended, it has also an *essential relation* with the sentient principle, that is, it must have its seat in that principle and cannot truly be thought without it. But this corporeal activity which manifests itself in extension is not extension, nor is it the sentient principle. It has, not only the first act whereby it exists, but also second acts, inasmuch as it presents itself to the sentient principle, not as an immovable and immutable term, but with movement and diversified appearances. Its proximate cause, foreign to the sentient principle, we have called the *corporeal principle*, which, when it makes its action felt in the soul, takes the name of *sensiferous force;* but we have not proceeded to investigate the nature of this principle, that is, what it may, or may not, be in itself. With respect to the cause why bodies move according to the law of attraction, and, as terms of our sentient principle, change position and aspects, we, on the strength of arguments which had, at least, a considerable show of probability, have placed it in the animation of the material elements. Hence, 1°, sometimes the activity of the sentient principle itself changes and moves its term; 2.° sometimes the corporeal term of a sentient principle is made to undergo a change by a principle which the latter does not perceive, and which is probably another sentient principle. We leave unconsidered the laws of mechanical motion, which has another origin.

1191. 3.° In the third place we have recognised the activity of the sentient-animal principle. This activity is what constitutes the animal. It follows from what we have said, that it has the power of changing the felt-extended. It follows also that the rational principle perceives feeling as entity, and hence can act in it, but this does not destroy the activity of the sentient principle. Hence, although the activity of the rational principle can act in feeling and change it according to certain laws, the activity of the

sentient principle, which is an element essential to feeling, still remains. And that simple perception causes no change in the feeling, we saw when we showed that it does not interfere with or counterfeit the objects perceived. But the rational principle, though it perceives the felt, cannot act upon it directly, because it perceives it essentially in the sentient principle and, therefore, as constituted by it. The rational principle, therefore, must change and move the sentient principle, in order that the latter may change that which it constitutes, viz., the felt-extended. Hence, there are two activities that act in the same felt, the one (the sentient principle) in an immediate way; the other (the rational principle) in a mediate way, that is, by moving the sentient principle. These two ways sometimes fall into conflict, and thus arises the strife of concupiscence. Moreover, since the activity of the sentient principle is limited, and is not the only one that goes to constitute and move the felt-extended, there being also other activities, that is to say, the *sensiferous force*, and other sentient principles, it comes to pass that the sentient principle is sometimes in agreement, sometimes in disagreement, with the foreign activities which have the power to constitute, or to cause changes in bodies; and when it is in disagreement, it sometimes conquers and sometimes is conquered, according to the amount of force which the opposite principles put forth. In this way arises the strife of disease. In the same way it comes to pass that the rational principle may be in disagreement with the said activities and in league with the struggling sentient principle, or even with the activities of the foreign principles, when these bind and dispossess the sentient principle, preventing it from yielding to and serving the activity of the rational principle.

1192. But if the opposition to the rational principle does not spring from the foreign agent, but from the sentient principle itself, then there is some defect in the primitive perception, which is the bond between the rational soul and the animal body; and this is why the rational principle has

not its full and natural forces, and cannot make its inferior obey it.*

1193. 4.° In the fourth place we have recognised the intellective activity, which consists in the intuition of being, and does not, and cannot, exercise any reaction toward being.

5.° Lastly, we have recognised and described in detail the activity of the rational principle.

ARTICLE II.

The first three Activities are not properly Activities of Man, but Conditions and Instruments of the Human Activity.

1194. Now, the first three activities are not properly activities of man as such; and the proof of this is, that they sometimes are opposed to him. If they were his activities, they could never be against the rational activity, which is *the* human activity.

Still they all help towards the constitution of man, the first, that of extension, as the *condition* upon which he can perceive bodies; the second and third, viz., the sensiferous force and the sentient principle, as *instruments* of the rational principle—the former as a mediate, the latter, as an immediate instrument.†

1195. The reasons why the rational principle cannot always make use of these its instruments by directing and controlling their powers, have just been explained by us. Stated briefly, they are:

1.° The weakness and imperfection of the rational principle, which cannot master the force of the sentient-animal principle, on account of the imperfection of the fundamental perception.

2.° The weakness of the sentient principle, which is not

* This accounts for the mysterious nature of that defect which theology calls *original sin*, and of which we have treated in a special work.

† In the same way Aristotle divides τὰ περὶ την ψυχὴν τομβεβηκότα into two classes. He says: "Some things seem to be passions proper to the soul itself, while other things seem to be inherent in the animal FOR THE SAKE of the soul." *De Anima*, L. I, chap. i.

properly conjoined and harmonised with the sensiferous principle on which it depends.

ARTICLE III.

The other two Activities, that of the Intellective Principle and that of the Rational Principle, form in Man but one Activity.

1196. If the first three activities do not properly belong to man as man, do the other two belong to him?

Yes, if we consider them in their *nexus*, which makes them one—the rational activity.

In fact, the intellectual activity, the simple intuition of being, is that first act which constitutes an intellective principle, but it is not yet a complete principle of the *second acts*, in which the activity of the soul manifests itself. And when we are dealing with the activity of the soul in order to explain the laws of its operation, we look for the cause of these second acts, and do not stop at the first act which ends wholly in itself.

If, then, we consider the rational principle, we at once see that there always is in it the act of the intellective principle, because this could not perceive a real being, if it did not first intuite ideal being. This subject, therefore, which intuites ideal being and hence is called intellective principle, is the same that perceives real being, and is hence called rational. The intuition of ideal being does not exhaust the activity of the subject; hence the intuition of the ideal is an act of the subject, but not the whole subject, the whole man; because a subject is posited by that first act which potentially includes all second acts.

The intuition of ideal being may be also considered as a *condition* necessary to the acts of the rational principle. And here we find a wonderful analogy between the animal order and the intellectual order. In the animal order we have the apprehension of space, as the condition of the apprehension of body. In the intellectual order we have the intuition of ideal being, as the preliminary condition

of the perception of real being. Hence pure space is an apt symbol of indeterminate ideal being. In the former, bodies are perceived sensitively; in the latter, real beings are perceived intellectively. It is a question belonging to Ontology, "Whether such symbols scattered in sensible nature of what takes place in the intelligent nature, are necessary consequences of the intrinsic order of being, or merely an effect of the most wise free will of the Creator." But let us return to our subject.

1197. How, then, must we define this rational principle, so as fully to include in our definition the first act of the human subject together with its diverse forms?—Thus: "The rational principle is the power of apprehending being as being, under its three forms, which power is entirely in act with respect to the ideal form, but partly in act and partly in potentiality with respect to the real form (viz., in act with respect to the fundamental animal feeling, of which it has perception; in potentiality with respect to the different terms of that feeling, which successively change), and altogether in potentiality with reference to the moral form."

1198. Hence, the rational principle, which is rendered one by the unity of being, contains the intellective principle as the first form of its act, and it also contains, radically, the three supreme orders of the human powers and faculties—the order referring to the idea, the order referring to (real) things, and the order referring to eudemonologico—moral good.

1199. The rational principle, therefore, has one single object, viz., being; but, as being is in three forms, so the *first act* of this principle is also in three corresponding forms; with this exception, that, with regard to the third, it is at first in potentiality and not in act; which thing is not difficult to conceive, since, given the act of the first two forms, the third necessarily issues, later, from their relation.*

* Without a first act, the power would not exist, as may be seen from the concept of power which we have developed in the *New Essay*, &c., vol. ii, 1005-1019.

CHAPTER VIII.

IN THE RATIONAL PRINCIPLE AS RELATED TO THE INFERIOR AGENTS IS FOUND THE REASON OF THE LAWS OF HUMAN ACTION.

1200. From all these things we may conclude that, as the powers of the human spirit differ according to the relations which the rational principle has with other activities and entities inferior to itself, so likewise the laws which these various powers follow in their action must be sought in the nature of such relations.

Now, as by *law of nature* is meant that constant mode which is seen in the operations of beings, so in order to prepare the way for the explanation of the laws of which we are speaking, it is not enough for us to have discovered in the rational principle the source of all human operations and laws; but we must also premise the theory of the *operations* of beings in general, and, first of all, present an accurate concept of *operation*. When this concept has been thoroughly well grasped and analysed by the mind, there will be no difficulty in understanding the necessity of those constant modes which are found in the human operations and to which the name of laws is given. This subject, in truth, belongs to Ontology and Cosmology; but since we have not as yet any adequately written treatises upon these sciences, to which we could refer, we are obliged here, as we have been on other occasions, to enter a little into them and borrow from them such doctrines as we require for our present purpose. Let us, then, begin the development of the concept of operation by showing the possibility of it—a possibility, which, although admitted by the common sense of men without any difficulty or wonder, has, nevertheless, always been a great stumbling-block to philosophy.

CHAPTER IX.

ON THE CONCEPT AND POSSIBILITY OF OPERATION.

ARTICLE I.

Immanent Acts and Transient Acts.

1201. When we conceive a determinate *being*, we at the same time conceive an *act*, that is, the act of its existence.

This act is simple, and lasts as long as the being does; hence it is one of the acts that are called immanent.

1202. But, is it the same thing to conceive a being and to conceive the act of its existence?

I reply: The act by which a being exists does not differ from the being itself except by certain relations added by our minds.

1.° When we say *act*, we add to it a relation to *power*, to which the concept of act is correlatively opposite.

2.° When we say *being*, we conceive the act as brought to its full completion, whereas when we say *act of existence*, we conceive, or imagine that we conceive, all the *process* whereby the being has attained its proper nature; and in the act itself we distinguish a sort of beginning (initial act), a middle, and an end wherein it rests completed, finished. Hence certain sentences which we find in philosophers; such, for example, as *In actu actus nondum est actus*, and the like.

3.° Moreover, the act itself of existence is conceived by us as necessarily preceded, or followed by certain other immanent acts, as we shall explain presently.

1203. But when we have a being constituted with all the immanent acts necessary to it, we then think, drawing

our thought from experience, that the being already possessed of its complete act of existence passes on to other acts, which are also attributed to it as its actions or operations. Now the act of existence, as well as the immanent acts that accompany it, are usually called *first acts*, and those that follow are usually called *second* or *transient* acts.

1204. The nature of the *transient act* consists in the transition which the being makes from one state to another, whether this takes place in an instant, or endure for a time in continual motion. The nature, therefore, of the transient act consists in *transition*, in motion without rest.

ARTICLE II.

Different kinds of Immanent Acts.

1205. The immanent act is that which endures with a being so long as no substantial change supervenes in it; and among immanent acts the first is certainly the one we have indicated, the act of existence.

But besides the act whereby a given being exists, we find other immanent acts, which may be divided into two classes:

1.° Immanent acts which *precede* the act of existence (I mean not in chronological order, but in the intrinsic order according to which a being attains its proper nature). Thus, for example, we have seen that the act by which human nature exists, and which is that of the rational principle, results from two preceding acts (which are, as it were, its form and matter), viz., the intellective act and the act of the fundamental animal feeling, both of which are likewise immanent;

2.° Immanent acts which *follow* the act of existence, but are indivisibly joined to it, *e.g.*, the stable accidents of a substance, such as habits.

1206. There are, therefore, three classes of immanent acts. 1.° Those which precede the act of existence; 2.° The act itself of existence; and, 3.° Those which follow the act of existence with a stable duration.

1207. In addition to this, analysis and abstraction sometimes decompose an act into several different relations under which they consider it, and hence immanent acts multiply in human language and conception.

ARTICLE III.

Difficulty of Explaining Transient Acts.

1208. It was in Italy, this native home of Dialectics, that intellects first began to rise to the most difficult questions. Here it was understood for the first time that what all the world admitted, namely the operations of beings, as transient acts, was much easier to admit than to explain so as to bring it into harmony with other truths furnished by human thought—a harmony which was seen to be necessary because truth could not contain in itself either disagreement or contradiction.

1209. The difficulty which attracted the attention of the most ancient Italic philosophers went direct against the vulgar concept of transient acts, according to which "these acts endure for some time in continuous change." In truth this concept of continuous changing involved insuperable difficulties, which when fully brought out by the most subtle dialectics of the celebrated Italian school of Elea, stirred up a tumult throughout the whole field of philosophy; and though the strife was several times renewed, it never ended in a decisive victory, but always ceased simply from exhaustion. To me it seems that in the arguments used by the Eleatic philosophers there was something solid. I shall take advantage of those arguments by adducing five in disproof of the continuity of the acts in question.

ARGUMENTS AGAINST THE CONTINUOUS CHANGE WHICH IS SUPPOSED TO TAKE PLACE IN THE TRANSIENT ACT.

1210. *Argument I.* If a being, during its transient act, goes through a continuous change, none of the states which it then successively assumes has any *duration* whatever.

But that which endures not, does not exist. Therefore none of its successive states exist. Therefore the concept of continuous change is an absurdity.

1211. *Argument II.* If the whole transient act taken together has a certain duration, in which the being continuously changes its state, the number of these successive states does not exist, because no number of instants, however great we may suppose it to be, can, by being added together, form a duration.* But if the number of the states which it must pass through does not exist, it is absurd to think that it can pass through them; because, if it passes through different states, these must have a determinate number, since nothing occurs in nature but what is determinate. Hence again continuous change involves absurdity. Therefore it is impossible.

1212. *Argument III.* If, however, anyone should say that a duration is actually divisible *ad infinitum*, and therefore an infinite number of parts might exist (a thing which, though certainly absurd, has been affirmed by even so great a man as Leibnitz !), then we shall ask, whether each one of the infinite number of parts into which the duration is supposed to be capable of being divided, endures for some little while, or does not endure at all—two alternatives between which there is no middle term. Now if each part has a duration, then in order to pass through an infinite number of durations, however small, an infinite time would be required and, consequently, the transient act would never be completed. This, I may say *en passant*, was one of Zeno's arguments against continuous motion.†

* Aristotle knew that the *continuous* in space, time, and motion cannot result from an aggregate of indivisibles, and the sixth book of his *Physics*, which deals with this subject, is well worth reading.

† The four celebrated arguments of Zeno against the existence of motion are cited by Aristotle, *Phys.* VI, q. 1. The first three are directed, not exactly against motion in general, but against *continuous motion*. Two of them tend to show that a moving object cannot possibly ever reach its goal if it must pass through an infinite number of parts of space, and therefore supposes space actually divisible into an infinite number of little spaces. The third, on the contrary, as Aristotle himself observes, is based on the assumption that time is actually divided into an infinite number of instants: hence it says that the body which moves would in every instant be at rest and, therefore, would not move at all. This argument, reduced to better form, may be expressed thus:

If, on the other hand, each part has no duration, but is only an instant, then the transient act can have no duration, which is against the hypothesis; because an infinite number of instants each of which has a duration equal to zero gives, when they are added together, a duration also equal to zero.

1213. *Argument IV.* If bodies moved with continuous motion, they could never move with different velocities. In fact, supposing that a body does not stop in any place, it must pass from one place to the other with the greatest possible speed; since no greater speed can be conceived than that which runs on from place to place without any the least pause or stoppage.

1214. *Argument V.* I draw this argument from the time that motion takes in communicating itself to all the parts of a body. That such communication requires time, and does not take place in an instant, is a fact which no physicist will be found to doubt. This is the reason, for example, why a ball from a rifle makes a hole in a board. The velocity of the ball, being very great, destroys the cohesion of the parts of the wood in less time than it takes the motion to communicate itself to the whole board, which, therefore, remains in its place. From this fact we may draw two equally strong proofs of the non-continuity of motion. The first is, that if motion communicated itself continuously, *i.e.*, without making any stoppage in any of the places through which it passes, the total time which it would take would be *nil;* because in the same way that the sum of any number of zeros is only zero, so the sum of any number of instants is, so far as duration is con-

"A body cannot exist without being in some place. Now if it is in some place, it must be there for some time, however short, because if it were not there any time, it would not be in a place at all. It is, therefore, essential to the existence of a body that it shall always be stopping at some place. Therefore, continuous motion is impossible." The fourth argument is directed, not against continuous motion alone, but against motion of any kind; for it pretends to prove that motion would involve this absurdity that the half of a given time would be equal to the whole time. But this is a mere sophism, because the absurdity is deduced from the circumstance that a body moving over a table at rest must take twice as much time to cross it as another body moving with equal rapidity takes to cross a table of the same length as the first, but moving, also with the same rapidity, in the opposite direction.

cerned, only *nil;* for we must remember that the instant has no duration. This argument resembles the preceding one and so I am content to consider it simply as a confirmation of that. But the second argument is new. It is this: A perfectly hard body, when receiving from another perfectly hard body in motion an impulse to motion, does not move until the impulse has been successively communicated to all its parts. Now, in order that this communication may take place, there is required, as we have seen, a certain time, greater or less according to the bulk and density of the two bodies and the velocity of the impelling one. During this time the hard body which receives the impulse offers an obstacle to the moving body which gives it. It, therefore, stops the moving body for a little while, after which both bodies—the impelling one and the impelled—move on according to the laws of motion. Here, then, we have a case in which, beyond all question, the motion, which seems continuous, of the first body has stoppages between it. There is, therefore, first, motion, then a rest of some little duration, then motion again, &c. But according to the law of inertia, when once a body is at rest, it remains so, unless there supervene a new cause of motion. The fact we have just pointed out is at variance with this law, and we must, therefore, admit that there is a species of pause or rest which is perfectly reconcilable with the motion that seems to be continuous, and to which the law of inertia applies.*

Moreover, if the body impinged upon cannot move until after the impulse has propagated itself to all its parts, and if, as is suggested by those who hold motion to be continuous, the propagation does not stop in any point, motion would be impossible. The reason is, that the impulse communicated at one point in an instant would either produce motion at once, or the motion, finding an obstacle to its display, would be crushed and extinguished. On the other

* If we suppose the body struck to be very large, the pause of the two bodies would be very observable. Indeed, it may last as long as we please, because we may suppose the body struck to be as large as we please.

hand, in order that all the parts may acquire the same impulse and thus be able to move on together, it is necessary that the impulse should be preserved alive in the single parts and points of the body impelled, during all the time which is required for that purpose. Therefore, each part of this body waits for a certain time before actually beginning to move. Therefore, the motion itself (not the impulse*) is communicated to the body impelled, in a certain time and not in an instant. But all bodies, however small, have some continuous extension; consequently, in them all, the same thing must take place, so that motion is never communicated in one instant, but always with an interval of rest.

Can a reply be made to these arguments?—In our opinion they are unanswerable and afford so many proofs that the transient acts do not take place by continuous change, but by instants more or less separated from one another. We have proved this same thing in another work, and shown that actual motion, although phenomenally continuous, is not really so.†

* We say here "not the impulse," namely, the conation to move, thus to avoid the question "whether the conation is communicated continuously or in frequent instants with minute intervals between." At the same time, if this question also were proposed, I think it would not be difficult to find in nature facts proving that even the conation to move requires time for its communication and, therefore, that the communication of living force is intermittent, as indeed it must be, if it consumes time. If the communication were continuous, no time would be found in it, because all its changes would be instantaneous, and no number of instants, even infinite, can, when summed up, give more than the duration of one instant, which is *nil*. Now, let the reader consider how, in the falling of ponderable bodies, the force of attraction increases in proportion to times and moments of time. This force, therefore, communicates itself in time. The same thing may be observed with regard to the smallest attractions. For instance, why is it that when your hat or your handkerchief falls to the ground and you pick it up at once, you find it less soiled with dust than if you let it lie there for some time? Simply because the dust needs time to be attracted and to adhere. Again, if you leave your Spanish snuff for a good while in your snuff-box without touching it, it will form itself into lumps, and so slowly that you cannot perceive the movement. Not to multiply examples, chemical experts know full well that in calculating the effects of affinities time must be taken into account. And as with the communication of the conation to move, so with its destruction. Thus, a body thrown in the air will take some time in extinguishing the movement which carried it upwards, and, before descending, will stop for a moment in mid-air. The earth, when it has arrived at the solstice, makes a pause, and then slowly resumes its backward course: and so on.

† *New Essay*, &c., vol. ii, 813-819.

1215. The difficulty in conceiving that the motion of real things, viz., the change of transient acts, has no true continuity, is immense for minds not well versed in philosophical speculation; because men generally are inclined to trust the phenomena of their senses to such a degree that they can hardly think anything to be possible which does not present itself in a sensible form. Hence we should not be in the least surprised if many persons should be found talking to us in this fashion: "Observation shows us that motion is continuous, and the facts deposed by observation must not be denied as you yourself are continually preaching to us." It is difficult to make such persons see that observation cannot decide the present question, which deals with a matter lying altogether beyond sensible observation; which deposes only to the apparent, while on the other hand it is evident that all things below a certain degree of minuteness escape the distinct perception of our senses.

1216. And, even if we could persuade these persons that observation can say nothing in the present case, because in the matter of space, time and motion, the intervals are so exceedingly minute that no human sensitivity is equal to apprehending them, or, at least, that no attention on the part of the mind is equal to discovering them in the sense even if this apprehended them, they would still be ready to ask us: "But how is it possible to conceive a transient act or a real movement taking place at intervals?" This question is no longer based upon observation, but upon reasoning, which considers the possibility of insensible things. It would be sufficient to reply, that even though we may be unable to explain how the thing takes place, there is nothing to show the impossibility of it; and since there are two opposite opinions, the one of which is demonstrably absurd and the other not, we ought to hold to the second and reject the first. This, I say, would be sufficient; and yet many, who have too little faith in what reason proves to them, would not be persuaded by it. To help them as well as we can in this sort of mental weakness,

which prevents their giving a simple and firm assent to speculative demonstrations when these are opposed to sensible appearances, we will show, in the first place, directly, that the sense of vision, in which most confidence is placed, when it gives or seems to give evidence of the continuity of the motion of a body (and the same reasoning may be applied to the other senses), is not, and cannot be a competent witness to the *continuity* of motion.

1217. It is a fact known to all physicists, and furnished by experience, that the sensation of sight has a certain duration in the optic sensory, and does not pass in an instant. If this were not unquestionably a truth of experience, we could prove the necessity of it on the ground that a sensation which had no duration, would not be at all. But we do not require any such proof from reason. Nevertheless, although every optic sensation endures for some time, the generality of men think it instantaneous, because this time is too brief to be perceived. Granting, then, that all optic sensations have some little duration, the undeniable consequence follows that the eye can bear no testimony to continuous motion, because it cannot testify to what it does not see. Continuous motion is simply a continuous change of places, in none of which the moving body ever stops. In order, therefore, to see a continuous motion, the eye ought to have a succession of different sensations, without any duration in them. But the fact is not so. When a man thinks he sees a body moving continuously, all that his eye can really witness to is a series of sensations which follow one another continuously (I mean with insensible intervals), and each of which lasts for some little while. Hence, the phenomenal motion also, that is, motion as seen by the eye, is made up of a series of states occurring in the moving body, and each having its own little duration. What is at fault, therefore, is the attention of the mind, which, failing to observe those minute durations, supposes that one follows the other without any interruption.*

* If a wheel revolves with great rapidity, the eye does not discern its different spokes, but confounds them together into a continuous surface, and

Setting out from these principles, students of nature have succeeded in inventing certain little gim-cracks, by which they make bodies appear to the eye to move, merely by representing successively to the vision a certain number of bodies, all equal in size and form, and each appearing in

this because, the succession of sensations being too rapid, the one comes before the other has had time to leave the optic sense. This, which is an undoubted fact, admirably confirms the truth of our contention. If when the velocity of the wheel is greater, it causes confusion in the sensory because this receives the impressions in too rapid a succession, we must needs say that, if the wheel revolves with less celerity, so that the eye can distinguish the spokes, the impressions succeed each other with less rapidity, so that each *lasts* long enough to be distinguished by the looker-on. But the impressions succeed each other with exactly the same celerity as the different states of the wheel which they represent; therefore, just as the impressions endure more or less in proportion to their greater or less celerity, so must also the successive states of the wheel. Therefore the wheel does not move with a continuous motion.

Now this is already a *physical demonstration* that the motion of the wheel is not, as generally believed, continuous. And as to the optical sensations becoming confounded because the wheel, when revolving very rapidly, causes the impressions on the retina to succeed each other with too great a celerity—so that the preceding sensation, perhaps not yet fully formed, is cancelled by the following one—this also can be proved by a very simple observation. Suppose a wheel revolving rapidly in the dark; if a sudden flash of lightning should happen to burst on it, your eye which receives the impression thereof, would instantly distinguish the spokes, as if the wheel were standing still. Why so? Because, as no other impression follows, the first has time to form itself into a term of sensation and advertence. Moreover, that the phenomenon of continuous motion arises in our sense even when there is no continuous motion in the external body, is proved to a certainty by another fact, if carefully observed; I mean those dreams into which motion enters. Sometimes we dream that we ourselves are running, or that we see other persons or things rapidly moving with continuous motion. Now there is not, in this case, outside of us, any real body corresponding to the fantastic representation, moving with continuous or any other motion. It may, perhaps, be said that there is continuous motion among those molecules of the brain (the organ of imagination) which serve to produce that moving scene in the interior sense. But this is impossible, because the images do not arise in us from the motion of running molecules, but from molecules agitated in a way so harmonious, that the image corresponds in all its parts to the corresponding movements of that group of molecules; just as is the case with the coloured images of the eye, which are not excited except on the condition that a bundle of rays, disposed in different colours, shall strike the retina and distribute themselves according to the colours of the image which they, for this very reason, excite in our visual organ. Now, when in a dream a person is seen running, we must, in order to explain this fact, suppose that many images of the same person appear in succession, since the corresponding harmonic movements succeed each other, let us say, in a streak of the brain. We cannot suppose that the image itself runs through the brain, or that the movements of the image roused in the first moment do so, because, even were this possible, we should then not see the image running, but the image would turn into various streaks of colour. Therefore the apparent motion in question is due to a certain number of images, always new and fixed as to place, which succeed each other by reason of corresponding movements excited in various minute and closely contiguous spaces of the brain; each of these movements lasting an exceedingly short time, but long enough to be formed, distinguished and preserved in the soul.

a place so near to the one preceding it as to seem that very same, but a very little further on. In seeing these similar bodies presented to the eye in places so near to each other, the spectator takes them for a single body moving with continuous motion. By this contrivance any kind of motion can be apparently imitated—the linear, circular, &c.—while at the same time the body that seems to move is not an identical body, but a series of similar bodies seen in different places, and representing exactly that motion which is commonly supposed to be continuous.

1218. Now this simple experiment enables us also to dispose of the question so frequently, though inconsiderately, asked: "How can a body pass from one place to another without moving continuously through all the intermediate spaces?" The nullity of this difficulty is seen from the moment that the possibility of motion appearing continuous without being truly so has been validly established; and, it is validly established by adducing even one case only in which the thing is seen actually to happen. Nevertheless, I will produce another case out of the many that I could quote from physical science and especially from astronomy. It is this:

When a person passes before a mirror, the motion of the image in the mirror corresponds to the motion of the person, and both appear continuous. Now how is the apparent motion of the image brought about? Is it because something passes from one place to another? Not in the least. That appearance is produced by means of ever new rays of light, which depict on the mirror images always new or physically different according as the preceding ones vanish; and yet it seems that it is the same identical image that walks and passes. Therefore the phenomenon of continuous motion can be explained without its being necessary to suppose that all the points of a given moving body touch all the intermediate points of space through which it passes or seems to pass.

1219. Some day perhaps it will be possible to advance, in favour of this theory, the intermittence of light, suspected

by some physicists, though not yet fully proved. Meanwhile I will bring forward a last objection.

1220. Someone may say: "The examples which you have adduced prove plainly that the phenomenon of continuous motion may arise without the motion being truly continuous, by the successive substitution of a series either of similar bodies, or of similar operations. Now do you mean to affirm that bodies which move do not preserve their identity, as was maintained by Leibnitz, who supposed that the full and the void of space were made of an immobile matter constituting infinite space, and that portions of this matter, by hardening successively (if I may so speak) in tracks, produced the appearance of an identical body moving?"

I reply, that, however alien such a supposition may be to the common way of thinking, which stops at phenomena, and does not go in search of the reasons or causes of them, it has never been shown to be either absurd in itself, or false in fact. The question is a metaphysical one, and whatever solution may be given of it leaves physical things as they were. Hence it will hardly be possible to prove it either false or true by physical arguments.

1221. But, without entering into an examination of the Leibnitzian hypothesis, I ask: Is there any clear definition of what constitutes the identity of a body? This is a question more difficult of solution than it seems to be. I will here treat it briefly, but sufficiently for the purpose in hand.

In a body we must distinguish two things, extension and force. Now, when a body moves, it is certain that its extension changes, because the body changes place; and one place is never identical with another, every place being outside of every other. What prevents many minds from grasping this truth, is the prejudice that bodies have an extension of their own, which they carry about with them, as if extension could be carried from one place to another, or as if the extension of a body and that of a place occupied by it were two different extensions, whereas they are per-

fectly one and the same. In this belief, the thought is deluded by the measure or quantity of the extension of each body. This measure or quantity is always preserved identical; but the extension itself changes, the body—as the motion proceeds—taking always a new one, of exactly the same dimensions as those which it had before. Now since the extensions in which the body successively diffuses itself are in every respect equal in size and uniform in quality, there arises very readily the illusion that the body has but a single extension, which it carries about with itself.

1222. The identity of a body, therefore, must be due to the other element, namely, the corporeal force. Now this force is merely the term of an act of that occult agent which we have called *corporeal principle*, and which can only be simple. In what does the identity of the term of an act consist? In its being the same in every respect. The identity sought in it in relation to the act is a *specific* identity, because this essential relation is what specifically constitutes the term. Thus if I smell a hundred times the odour of roses, though the acts are numerically different, their term is specifically identical, because they always terminate in the self-same kind of sensation, the odour in question being, of course, supposed invariable. In all these acts I have only one sensation, that of the odour of roses, related to various acts. Now, if the corporeal principle actuated the body intermittently, this principle (being, by reason of its simplicity, capable of embracing the whole of space at once, as we have seen to be the case with the sentient principle) could make the body appear successively in places most near to each other, so near as to appear continuous and uninterrupted, and thus the body would seem to move with continuous motion, although it would not do so in reality. Nevertheless, it would always be the same body, because it would always be the term, similar in every respect, of the intermittent acts of that simple corporeal principle. Hence, whatever individual diversity there might be, it would be entirely undis-

cernible. If, however, even so much specific identity retained by each body were not considered sufficient, and one should insist upon having a numerical identity, it would not be impossible to find this also. We could find it by considering the sensiferous force as an identical virtue of the corporeal principle, operating with an intermittence not perceivable by the senses.

1223. Let us conclude: Transient acts are formed in an instant, or are a compound of smaller acts formed in so many instants very close to each other, the intervals between them being of a duration so minute as not to be in any way observable by man.

CHAPTER X.

ON THE NEXUS BETWEEN TRANSIENT AND IMMANENT ACTS.

1224. In attempting to explain the concept of transient act, or even to form it accurately, other difficulties, in no small number, present themselves to the philosophical speculator. But these will meet us as we proceed, and then we shall try to overcome them. To bring them forward now one by one would protract our discussion to a greater length than is necessary for the object we are anxious to attain by it.

Here, therefore, we must consider the *nexus* between the transient act, according to the concept just given of it, and the immanent act.

We have said that this concept is that of a *transition* or change, which takes place in an instant.

1225. Holding firm to this concept, as well as to the theory on the nature of the *instant* and *duration*, we arrive at a definition of transient act, which shows in the clearest way its *essential relation* to the immanent act. It is this: "The transient act is always the beginning or the end of an immanent act," or, "The transient act is only the beginning or the end of an act that endures."

CHAPTER XI.

COROLLARY I. ASSUMING THE EXISTENCE OF TRANSIENT ACTS, WE CAN PROVE THE EXISTENCE OF GOD.

1226. The above definition gives us a most important corollary, which we wish here to call attention to, because we shall require it as we go on, in order to be able to proceed with full clearness and distinctness of thoughts.

The corollary is that of the existence of God, proved by the mere existence of transient acts. This proof, which seems to us irrefragable, may be conducted in the following way:

If there are transient acts, there must also be immanent acts, since the former are only the beginnings and endings of the latter.

But no immanent act can be the cause of its own ending; for no act can be the cause of its own non-act, or of the cessation of itself.

Neither can the immanent act be the cause of its own beginning, because no act can give existence to itself, since that would be acting before existing.

Now the transient act must also, by the principle of causation, have a cause, inasmuch as it is a change or transition,* and this cause cannot be the act itself, for the reason just mentioned, that what is not cannot give itself existence.

If, therefore, the transient act is not caused by the immanent act whose beginning or end it is, there must be another immanent act to cause it.

But this immanent act which causes the transient act,

* *New Essay*, vol. ii, 567-569.

either will itself have a beginning, in which case it must have been caused by a transient act, or else it will have no beginning at all, and consequently no end.

If we say that it is caused by a transient act, we shall be obliged to ascend to another immanent act, and in order to avoid having recourse to an infinite series of causes (in which case no act would ever be produced, because its production would require an infinite time, and an infinite time could never pass) we must stop at an immanent act which has neither beginning nor end. If, on the other hand, we say that it is not caused by a transient act, we have again an immanent act without beginning or end.

There exists, therefore, an immanent act without beginning or end; and this is God.

Hence, if transient acts exist, God necessarily exists.*

1227. This proof has the advantage of showing directly that God is an immanent act, and a perfectly pure act.

* The proof of God's existence from the fact of motion, which St. Thomas took from Aristotle (*Physics*, Bks. VII and VIII), and called the first and most obvious way to demonstrate the divine existence (*Sum. Theol.*, Pt. I, q. ii, art. 3), derives its force from the principles we have laid down in regard to the nature of immanent and transient acts.

CHAPTER XII.

COROLLARY II. PROOF OF THE CREATION.

1228. Now the above is a most fertile truth, and the principle of the whole theory concerning the Divine nature, the unfolding of which theory belongs to *Natural Theology*.

Among the other things which it implicitly contains, is a direct and rigorous proof of the necessity of creation—a proof, however, which I do not remember ever to have found in any author. It may be stated briefly in these four propositions:—

All immanent acts that have a beginning and an end are mixed and connected with transient acts, which are exactly their beginnings or ends.

Immanent acts which begin with a transient act cannot be the cause of this transient act.

This transient act, therefore, by which the immanent act begins, must be caused by an immanent act which has neither beginning nor end, and is not mixed with any transient act.

Therefore, this immanent act, which, as we have seen, is called God, in producing that transient act which gives beginning to an immanent act, must operate in such a way as to produce that act outside of its own self without giving rise, in itself, to any transition, change or transient act.

But this kind of operation, considered in reference to the transient act produced as the beginning of immanent act, is called *creation*.

Therefore the necessity of creation is a fact, that is, creation is necessary in order to explain the existence of

the world, which is a complex aggregate of immanent and transient acts bound together.

I feel confident that intelligent readers will find this demonstration fully as cogent as any to be read in Euclid.*

* From it we may draw a direct refutation of the pantheism of the School of Elea, and properly of Xenophanes. Those philosophers fell into this error from not being able to unveil the mystery of transient acts. The principle from which Xenophanes set out was, *Ex nihilo nihil fit* (See Aristotle, *De Xenophane, Zenone et Gorgia*); and he construed it as meaning that transient acts are in contradiction with the principle of causation, and therefore do not exist. We reply: It is not true that transient acts conflict with the principle of causation. What is true is that they imply a first cause which operates in such a manner that the transient acts do not in any way affect itself. Now, since these acts must remain distinct from that cause, we are bound to say that they are merely effects of its operation and not acts of which it is itself the subject; which is equivalent to saying that "this first cause, operating with an immanent act, creates immanent as well as transient acts outside of itself." That the inability just named was the logical origin of Eleatic Pantheism, may be gathered also from the following passage of Aristotle. Seeking to explain how philosophers, in searching for the material cause of things, were forced, by the connection of ideas, to go further and search for their efficient cause, he says: "Proceeding in this way, they were, by the nature itself of the subject, led on into further investigation. Indeed, if all corruption and all generation proceed from something, be it one or many, how and for what reason does this happen? Clearly, a subject cannot cause itself to change; for example, wood and bronze are not the cause of their own changes; nor does the wood make the bed, or the bronze the statue. The cause of the change is something else. Now, to search for this is to search for another principle [*besides the material*], just as we do when we ask the question: What is the principle of motion? Those, then, who first entered upon this path, and posited a single subject, did not see any difficulty in the assumption. But some of them, who posited the One, as if vanquished by this question, say that the One is immutable, and that the same is true of the whole of nature, not only with respect to generation and decay (for this opinion is old and was admitted by all), but also with respect to every other change, an opinion which is peculiar to them."—*Metaph.*, L. I, c. 3.

CHAPTER XIII.

NO BEING MOVES, *I.E.*, PERFORMS TRANSIENT ACTS, BY ITSELF ALONE. EACH REQUIRES THE COÖPERATION OF SOMETHING DIFFERENT FROM ITSELF.

1229. Let us now pass on to another difficulty, which presents itself in the concept of transient act.

Transient acts can be only acts coming from immanent ones. That which is, is immanent, since, as we have seen, a *being* without any duration is an absurdity. The instant is the limit of duration and, therefore, supposes duration. It cannot stand by itself, any more than can the mathematical point, which is the limit of the line.

Now, an immanent act which produces a transient act, either produces it by an eternal act, also immanent, in which case it is not the subject of the transient act (this, we have seen, takes place only in creation); or else it produces a transient act of which it is the subject, so that the transient act is an act of its own. Thus, for example, the act by which the sentient principle feels a new sensation, or the act by which the rational principle forms a new thought, are transient acts, whose subject is the sentient principle, or the rational principle. These transient acts modify the subject which performs them, produce something new in it, and it is in the explanation of them that the difficulty to which we have alluded presents itself. It is this:

If a being (which is an immanent act) becomes the subject of transient acts, in other words, modifies itself, we must, on the principle of causation, assign a sufficient reason, a cause of this modification.

The being itself, that is, the immanent act itself, does not

contain the sufficient reason or the full cause of this novelty, because if it did so, the act produced would not be transient, but immanent, in other words, it would always have existed in the immanent act; for when the *full cause* is posited, the effect exists. But the immanent act was before the transient act appeared; therefore, the immanent act is not the full cause of the transient acts which manifest themselves in it as so many accidents belonging to it.

This is a fresh proof that the immanent act, which is the subject of the transient act, cannot be its full cause—a proof which must be added to the one given above.

1230. The consequence of this is, that no being is truly and strictly *self-moving;* some foreign agent must concur in its movement, that is, in its change.

1231. To avoid this consequence, which seemed to them a difficulty, many ancient philosophers placed the essence of the soul in motion;* but, setting aside the fact that

* Ancient philosophy was very much trammelled by the poverty and imperfection of philosophic language. Tiedemann notices this in reference to the Greek philosophy when expounding the argument of Plato's *Parmenides.* I find the same difficulty in all times down to our own. A history of philosophy ought most carefully to collect the examples of these obstacles, which the scarceness and ambiguity of terms placed in the way of the free progress of philosophic thought, and to show that this is one of the chief sources of the dissensions and disputes that divide philosophers. But a true history of philosophy has not yet been written, nor will it be written for some time to come. Even the time for writing it will not come, unless the historians of this science, the mother and ground of all the others, limit their researches to a narrow sphere, by giving us accurate special histories of the several schools or of the several nations. Meanwhile, I think it will not be useless, whenever the opportunity presents itself, to point out examples of the inadequacy of the words employed by the greatest thinkers, and the inconstancy of the meaning which they intended to express in using them.

The word *motion,* in its proper sense, belongs to bodies which are transported from one place to another. But it is easy to observe that the same word comes gradually to receive a wider and wider meaning in the course of the only psychological work left to us by Aristotle, until at last it is made to signify in general any kind of *transient act.*

1.° Aristotle distinguishes primarily four kinds of motion—*transference, alteration, increase, diminution* (*De An.*, Bk. I, chap. iii). Now it is clear that *alteration, increase,* and *diminution* are not, properly speaking, *motions,* but rather the effects produced in a material substance by the concurrence of several motions. Still, these pretended species of motion do not go beyond body; they are motions and effects of motion in a material substance.

2.° According to this concept of motion, Aristotle distinguishes *motion* from *sense,* saying that, of the philosophers before him, some had placed the essence of the soul in *motion,* some in *sense,* and some in both together

motion is not a substance, and requires a substance as its subject, and also a cause; if the essence of the soul consisted in motion, this motion would have to be always the same, because if it varied, we should be obliged to have recourse to another cause to explain this variation. Hence Aristotle concludes that, rather than motion, rest is what must be attributed to the soul.*

1232. He observes that the philosophers in question

(*Ibid.*, chap. ii). A little further on, however, he forgets this, and says that "all define the soul from three things, motion, sense, and the incorporeal," where by *incorporeal* he seems to mean the intellect, or the idea. But afterwards he finds motion even in sense, for he says: "But if the soul moves, one would say that it is moved chiefly by the sensibles;" and later on, attacking Plato, he says "that the latter holds the soul of the universe to be similar to what is called intellect, for the reason that he attributes to it a circular motion. Now the motion of the sensitive or of the concupiscent soul is not circular."

3.° Further on, not content with having granted motion to sense, he attributes it also to intellect, saying that "the motion of the intellect is intellection;" but afterwards he denies this, by saying that "intellection is more similar to a kind of quiet and rest." In the following chapter, moreover, he admits that grief and joy and reasoning are motions, but maintains that the soul produces them without moving itself, and merely by making the heart and the body move, partly with a motion of transference, partly with one of alteration. "This must not," he writes, "be understood to mean that the motion is in it, but only that it sometimes goes to, and sometimes from it. For example, sensation goes from things to it, and reminiscence goes from it to such motions, or to such states of rest as are found in the senses."

Even admitting that when Aristotle speaks of the *movement* of sense and of reason, he is using the word metaphorically, it cannot be denied that such metaphors often render his meaning obscure and uncertain.

In the third book of the *Metaphysics*, he employs the word *motion* in a still wider sense, teaching that "all actions take place through movement." Now, the same most extensive signification is attributed to the word motion (κίνησις) by Plato, as may be seen in Theætetus, and by all ancient philosophy.

* The arguments employed by Aristotle to prove that the soul does not move itself of its own nature, may be reduced pretty nearly to the following:

1.° If the soul moved itself of its own nature, it would, in moving, have to employ a force, and this would be doing violence to itself; and the same would be true when, being in motion, it tried to bring itself to rest. But in the nature of the soul we find no violent movements, only spontaneous ones (Bk. I, 3, 4). This would likewise be opposed to the well-being of the soul, because the violent is opposed to happiness, so that in this case, the soul would be, by nature, unhappy.

2.° If the soul is in motion because it moves the body, the motion of the soul ought to be similar to that of the body, and, therefore, a motion of transference. In this case, the soul might leave the body and afterwards return to it (I, 3, 6).

3.° If the soul moves itself, it is at once the movent and the moved. Now, since that which is moved goes to a distance, the soul, in so far as it is moved, could go away from itself, from its own substance, in so far as it is movent.

4.° If the essence of the soul consisted in motion, it would be impossible to explain its rest. Now, it is certain that, when the intellect has intuited the first principles, it rests in them; and likewise, when it has reached the conclusion of the syllogism, it rests in it.

5.° Finally, the nature of the intellect is unalterable, and, therefore, immovable, not being corrupted with the corruption of the body.

came to this opinion, because they could not conceive how that which gives motion could do so unless it were itself in motion,* and in combating them, after having proved that the soul does not move itself,† he concludes that it is not necessary for that which imparts motion to be itself in motion.‡

But this opinion is open to many difficulties. Either the word *motion* is understood in its proper sense, of local motion belonging to bodies, and then it is easy to prove that the soul, being simple and spiritual, is exempt from it, and hence can move bodies without being itself in motion, since it is principle and bodies are its term, and in this term there is space, place, and motion.

On the other hand, we may give to the word motion a more extensive signification, making it mean the transient act of mutation, or of the occurrence of something new, as Aristotle frequently does. Hence, as it cannot be denied that the *powers* of the soul come forth into transient acts, Aristotle remarks that Democritus, who attributed motion to the soul, confounded the power of the soul, to which motion belongs, with the soul itself, to which it does not belong.‖

* *De Anima*, I, 2.

† Nevertheless, he attributes to the soul accidental motion [κατὰ συμβεβηκός], similar to that of persons who, being in a boat and not walking, nevertheless, move with the motion of the boat. Thus the soul, though immobile in the body, moves when the body moves. But such mode of conceiving movement in the soul shows that even the Philosopher of the Schools had not attained a pure and clear concept of the soul. This arose from his not having distinguished with sufficient accuracy and constancy the *principle* from the *term* of the human individual. If he had seen or felt the supreme importance of this distinction, he would have recognised two things: (1.°) that the soul is the *principle*, and that, although essentially connected with its term, it is not, therefore, its term, but something substantially distinct from, and even opposed to, its term; (2.°) that all movement begins in the term, and none in the principle, so that the soul remains exempt from all local movement, whether in itself or *per accidens*. But if it moved as a sailor does in a ship, this would be a local motion, and there would be no contradiction in supposing that it moved also of itself.

‡ *Ibid.* Aristotle having declared that the soul imparts motion without being itself in motion, Aureolus and others observed that the argument for the existence of God, drawn from the necessity of an immobile to move mobile things, does not strictly prove God's existence, but only that of a world-soul. But, as Cardinal Gäetano says: "*Primæ viæ* (demonstrandi Dei Existentiam) *ex parte motus sat est quod inferat 'Ergo datur primum movens immobile,' non curando utrum illud sit anima cœli aut mundi; hoc enim quæretur in sequenti quæstione,*" and this is St. Thomas' purpose, when he demonstrates the existence of God from motion (In *Sum. Theol.*, Pt. I, q. ii, art. 3).

‖ *De Animâ*, I, 3.

But, if the powers of the soul are only its activities, lying in its essence, we must admit that the soul remains modified by the acts of its powers, not only when these are acting, but also after they have acted, inasmuch as habit remains in it as a residue of that action. For, although the soul has the nature of *principle*, still this principle has its activity increased or diminished, and thus there arise in it certain changes, and in these, in a metaphorical sense, certain motions, because, after all, the soul is the subject of all the acts of its powers, and the subject is modified by its transient acts.

It is true that Aristotle says that the soul is an act (the act by which the body is living); but he cannot deny that this first act is such that it can and does perform other transient acts, and, therefore, is not pure act and free from all mutation, but passes from potentiality to act.*

1233. If, then, the word motion is taken to mean any transition from potentiality to act (and it is in this transition that the nature of the transient act lies), we must say that the truth in this matter lies mid-way between the opinion of those philosophers who placed the essence of the soul in motion, and that of Aristotle who denies all motion to the soul. It is: "That the soul, like every other being which is not the first, is an immanent act, the subject of transient acts, but not their full cause."† Indeed, if it were their full cause, the acts would never cease so long as the cause lasted, and thus they would be immanent, as is the case with God's creative act, which is eternal and neither

* St. Thomas admits that, if we set out with the principle, "Everything that moves is moved by another," there cannot be any true self-movents (*Sum. Theol.*, Pt. I, q. ii, art. 3). Now, even the soul moves, that is, passes to *transient acts*, and, therefore, it is not true that the demonstration of the existence of God from motion proves only the existence of a *world-soul*, although Gäetano grants it to Averröes and Aureolus, supposing the truth of Aristotle's dictum that the soul does not move, does not undergo change from transient acts. If the soul does not move with local motion, it moves, nevertheless, from potentiality to act, and this is enough to necessitate the admission of a mover, in whom there are no transient acts, and no motion from potentiality to act.

† The acute Gäetano writes: "*De ratione causæ est efficacia; nisi enim causa aliquid efficiat, causa in actu—dici non potest. Oportet ergo ad hoc quod causæ ratio servetur, ut causalitas illius compleatur*" (*In Sum. Theol.*, Pt. I, q. ii, art. 3).

has nor places in God any change or transition whatever. In the contrary hypothesis the soul would be a *self-movent*, the concept of which involves contradiction, as we have said.

1234. If, then, no being can be a true self-movent, that is, the full cause of its own transient acts, we must further inquire how these arise, what is their full cause.

For this purpose we must recall to mind that the soul has the nature of principle, and that the concept of principle involves that of act. But a principle does not exist without its term, and it is from its term that it receives its actuality and activity.

The sensitive soul has, for its term, space and body.

The rational soul has, for its term, being.

Now, if the term changes, the actuality and activity of the principle change in consequence. Hence, as we have already said, the cause of the transient acts that happen in the soul must be sought in the change of its terms; for the principle is essentially act and therefore indifferent to its terms; nor does its activity ever cease, whatever term be given to it; on the contrary, it receives, according as the term is, a greater or less degree of actuation.

1235. This truth, which is furnished by internal observation, explains how in the soul there can be potentiality, though, being a principle, it is essentially act; which would seem to be a contradiction. But if we admit that the act itself receives more or less entity according to the nature of the terms supplied to it, we see, on the one hand, that it always remains pure act, although greater or less, and never, properly speaking, with any part of its essence existing only in potentiality, while, on the other hand, being capable of increase or diminution, it is rightly said to be in potentiality with respect to this increase or diminution of itself.

1236. And thus is explained the true *concept of potentiality*, as a *negation of act*, and not as something positive constituting a substantial part of the principle-being.

1237. It is true that, between a term being fully given

to a principle and its being altogether denied to it, there is an intermediate state, which consists in its being given to it imperfectly, so that the principle cannot be fully actuated; in which case there appears the *bad condition* of the principle itself, and a *state of combat* between it and its term; but we will speak of this elsewhere.

1238. We may now, therefore, conclude that the ground of transient acts must not be sought for in the principle-being, but in the term-being. Hence it will be necessary to examine with the utmost care what are those forces, virtues, or causes that change the term-being, and how they operate. This will enable us to explain how transient acts are possible, because it will make us see how they are formed. But, as not all beings operate in the same manner, it will furthermore be necessary for us to descend to the different kinds of beings and of the transient acts severally belonging to them. This we shall do in the following chapter.

CHAPTER XIV.

OF DIFFERENT NATURAL AGENTS AND THEIR DIFFERENT MODES OF ACTION, AND, FIRST, OF THE ACTION ATTRIBUTED TO BODIES.

1239. All the above remarks seemed to us to be necessary as preliminaries to the explanation we have to offer of the movement of the rational principle; because the condition of this movement is not clearly conceived by the mind, unless (1) the nature of the movement of all beings in general, and particularly of those that are subjects of transient acts, is known, and (2) unless the movement of the rational principle is compared with that belonging to the other agents of nature. The first of these two things was done in the preceding chapter; the second remains to be done in this.

1240. To man, no filled space, I mean space distinguished by means of a body diffused in it, has been given by nature except that occupied by the fundamental feeling.

The confines of this space are not felt at first, but are found afterwards by means of surface sensations.

But even these confines could not be perceived, unless some space beyond these same confines were felt.*

Here we must stop, because for our present purpose this already requires explanation.—" How can anything be felt beyond our own bodies ?"

1241. We have, it is true, the perception of unlimited space; but this space is indistinct, that is, has not yet any relation to the bodies that do or may fill it. Hence, it is not sufficient for explaining how we acquire the know-

* *Anthropology*, Bk. II, nos. 154-180.

ledge of that distinct space, which exceeds the confines of our body, I mean the knowledge of the relation between our bodies and immeasurable space.

The solution of this difficulty must be derived from the distinction of the two modes of feeling, the *subjective* and the *extra-subjective*.

The subject diffuses itself in the corporeal fundamental feeling as a master, as in a thing belonging to it, joined with it as a part or rather continuation of itself. It acts in it, and requires it as an essential condition of itself. Here no linear or superficial confines appear; it is a solid feeling, beyond which nothing corporeal is, or can be felt; because it has no sensible relations to any foreign body.

The extra-subjective sensation is of quite another kind. It bears witness to a force foreign to that of the felt—a force which produces a certain violence (though sometimes pleasant) in the fundamental feeling. The foreign force acts in the feeling's own extension, in the fundamental felt, and then this extension takes outline and shape. Now it is necessary to understand well the nature of these superficial confines, which our fundamental felt thus acquires.

First of all, when our touch is affected by a foreign body, we distinguish this body as foreign, because we feel that its action is not that of our sentient principle; on the contrary, this principle is in that action; we feel that the foreign agent is not felt in itself; only the effect and term of its action are felt, because the feeling which we have of it is not that of a solid, but of a surface. We, therefore, feel the term of its action, but not itself, and this is the very reverse to what happens in the fundamental feeling, whereby is felt, not a superficial term of action, but the agent itself in all the solid space in which it diffuses itself as agent. Inasmuch, however, as the term of the foreign action is in our fundamental felt, in which that term operates, it comes to pass that the same sensible surface which is the term of the foreign action is perceived also as a confine of the fundamental feeling. As a natural consequence, that surface is distinguished from the rest of this feeling, and thus

becomes the term of two agents, the foreign one, and the native one, namely, the fundamental felt (in so far as it is sensiferous). This (to prescind now from the sight and the other senses) takes place through the touch, which is the proper measure of bodies.* Hence, if our bodies were motionless, we could not by means of the touch know simultaneously of the surface of a foreign body, a larger quantity than is found commensurate with the surface of our own.

In order to explain how we can perceive a body larger than our own, we must have recourse to motion, either in external bodies, or in our own.

As to external bodies, if different bodies act successively on the same part of our body, either those bodies are perfectly alike in extension, form, &c., or they are different. If they are perfectly alike, and are applied successively to the same part of our bodies, we cannot, by the mere touch, unassisted by other senses, distinguish whether the agent is one and the same body, one force operating with repeated acts, or several bodies. But, if the bodies vary in extension and figure, we shall take them for different bodies, and this not by virtue merely of the sentient principle and the retentive power belonging to it (I do not speak of this at present, as there is no need to enter upon so subtle a question); but by virtue of the rational principle. The truth is, that by comparing one sensible and sensiferous surface with another, we shall find them different, and thus there will remain in the mind the knowledge of several surfaces, let us say ten, with an extension equal, say, to a square foot, but of different shapes. This alone will suffice to make us conceive an extension greater than that which corresponds to it in our own body; for the surface, in so far as it belongs to our fundamental feeling can never be multiplied by us, because we feel that it is always the same. A square foot of superficial extension in our own bodies, therefore, is the field, so to speak, in which we can feel a square foot of the superficial extension of the

* *New Essay*, vol. ii, 922-940.

foreign force multiplied to any extent, according to the number of sensations of different shape that are successively repeated and multiplied.

1242. Let us now come to the motion of our own bodies. It is certain that, when our bodies move, and are continually receiving new and different sensations from the bodies around varying in shape and activity, we can, by means of our rational retentive power, go on increasing the knowledge of a space more and more extended without any assignable limit. But the difficulty here is to explain the motion of our own bodies. Have we not said that the sentient and rational principles are both immovable, so far as local movement is concerned? How then can our subjective bodies be moved? What is this movement?

It should be observed, that we perceive our bodies in two ways: (1) *extra-subjectively*, that is, in so far as they have, like all external bodies, a sensiferous force rendering them visible, touchable, &c., and (2) *subjectively*, in which case they are the *felt* [term] of the fundamental feeling. Now our extra-subjective bodies do not enter into the fundamental feeling, on the contrary, they are only the sensiferous force, foreign and opposed to it. Let us suppose, then, that we have not perceived them extra-subjectively, but only subjectively. In this case there is no longer any motion in them. In fact, we have already shown in the *Ideology** that our motion is not, by itself, sensible; but if our fundamental feeling feels no motion, it follows that motion has no place in it, because into that which is essentially feeling nothing enters but what is sensible.

It may be alleged that, when we move our own bodies, say in walking or leaping, we feel the force which we exert in order to move ourselves. This is true; but the force which we exert is not yet motion, but only the cause of motion. The fundamental feeling, therefore, does not include the motion of translation from place to place, although it includes the force that causes such motion.

Consequently the motion of translation is only a change

* *New Essay*, vol. ii, no. 806.

that takes place outside the subject, a change in the extra-subjective body, in the sensiferous force, but not in the fundamental feeling. This remains immovable.

1243. But even when the extra-subjective body is transported to a new place (a fact brought home to us by the difference of relation which we find our body to have assumed to the surrounding ones), our fundamental feeling is still present to the same extra-subjective phenomena which the body continues to exhibit after being transported. Thus the relation of the subjective body to the extra-subjective remains unaltered. Hence it happens, that when our extra-subjective body occupies a new space, we commonly say that our subjective body does the same, and therefore, that it also has been transported, has moved.

The observation of this fact was exactly what induced Aristotle to attribute to the soul that kind of motion which he calls *by accident* (Κατά τομβεβηκός. *De An.*, 1, 3), and compares to the motion of colour, which moves, not because it is colour, but because it adheres to a moving body. But this, as I have said, is an error. Anyone who reflects on the fundamental felt will see quite plainly, that the motion in question, either would have to be felt and so come within the fundamental feeling, or else could not be its motion at all. Feeling, by its very essence, is wholly shut up within itself, and hence the changes of things outside of it are not its movement. We must therefore admit, that local motion is a purely extra-subjective phenomenon, that is, one which is known purely by extra-subjective experience, and not a subjective phenomenon felt as an accident of the subject itself or of its fundamental felt. Now all extra-subjective phenomena are produced by the *sensiferous force.* Hence we may indeed say that, with the movement of our own bodies, the relation between our fundamental feeling and the sensiferous force scattered throughout nature, for example, in external bodies, changes; but we cannot say that the feeling itself changes or moves.

1244. Here someone may object: Are not the surfaces

of the fundamental feeling, when affected by the action of the sensiferous, felt by us? And yet these surfaces move. To this I reply: 1.° That these surfaces are felt while the sensiferous force is being actually applied to our bodies, and during that action there is no local movement in them; 2.° That, when the sensiferous force no longer acts on our sense of touch, and our bodies have been transported from one place to another, then the change consists solely in the altered relation between the sensiferous force and the fundamental feeling, as we have said.

1245. But do we not, with our own eyes, see when our bodies are in motion?—Yes, we do, but please to remember that the experience of the sight is altogether extra-subjective. What is seen are our bodies in so far as they fall within extra-subjective experience, and I have already conceded, that in the body considered extra-subjectively there is motion. But this kind of body is not the fundamental felt, but quite a different thing.

1246. But you cannot deny that in the event of our being affected by a particular sensation which passes from one point of the surface of our body to another, there is in that surface a feeling of motion.—I do not deny it; but this sensation is produced by the sensiferous force, and therefore belongs to the body perceived as an extra-subjective thing, and in this order of perceptions motion exists.

1247. But in the animal fundamental feeling you have distinguished a simple sentient principle and an extended term. Moreover, in the extended term you have recognised two conditions—that of *felt* and that of *sensiferous*. Granting, then, that motion does not belong to the sentient principle as a simple and incorporeal entity, still it must belong to the extended term, for two reasons: (1) Because it is extended, and an extended may be transported from one place to another; (2) Because in this same extended there is the sensiferous to which you allow motion.

I answer, that the term of the fundamental feeling in so far as it is accompanied by the sensiferous force, is no term of this feeling, but is that force which can change its term,

that is to say, constitute it differently to what it is. I will explain. The fundamental felt, considered merely as felt, is in the sentient principle even as we have seen that the extended is in it, namely, as a contained in a container; and between the sentient principle and the extended there is a union so perfect that the two form together a single feeling. On the contrary, the sensiferous force is not in the sentient principle in this way; it simply acts in the extended term of the feeling and changes it. Hence the sentient principle is not permanently united to the sensiferous force, nor does it receive the action thereof directly, but only indirectly, in this sense that it has its felt term changed by a force different from its own. Moreover, when the sensiferous force is actually operating in the extended term of the feeling, it does not then exhibit in itself a movement from place to place, but only an action in the felt itself, the term of the sentient.

As to the second objection, namely, that the felt term of the fundamental feeling, being extended, is capable of motion, I reply, that not every extended is capable of motion. For instance, infinite space itself is not capable of motion, as we have seen, nay, is essentially immovable. To make movement possible, there must be, beyond the space occupied by the extended, another space into which this can be transported. But we have seen that the extended proper to the fundamental feeling is one to which there are no confines, and that it is only for perceiving superficial confines that we require another space beyond them. The fundamental feeling, on the other hand, is of such a nature that, beyond it, that is, beyond its felt term, no other extension is perceived. All its extension ends in itself, and hence there is no possibility of motion occurring in it, because there is no other space beyond its own into which it could move. In order, therefore, to conceive a change of place, we must go outside of it, and enter the extra-subjective world. When we know the phenomena of that world, then the fundamental felt seems to us to move; but this motion, as we have said, is nothing more than the

change of relation between the extended felt term of the fundamental feeling and the extra-subjective world. This relation, however, is not one of place to place, or of extended to extended, but of extended to feeling. It is, therefore, an unextended relation of sensility that is changed, or, more strictly, a relation between the cause of the action exercised in our feeling (the sensiferous) and the feeling itself. Motion, on the contrary, is a change of relation between extended and extended.

1248. But, if the fundamental felt, taken in its whole, has no motion of translation, is not transported from place to place, you will, at least, admit that the extended term of the fundamental feeling may be increased or diminished; and this implies a kind of motion through extension or restriction.—Yes, the fundamental felt may be increased or diminished, but this takes place, not through *motion*, but through *naturation*: the felt begins to be in a greater extension, and then ceases to be in a part of it. This is not local motion, but a kind either of creation or cessation of a new felt-extended part.

1249. But the fundamental feeling is not uniform. If, then, one part of it is felt more or otherwise than another, it may move from place to place within the extended fundamental felt.—I reply: If this can be called motion, then it is the only motion that can be admitted in the fundamental feeling. But we must explain it, and in so doing we shall easily see that it is not true motion, when we prescind from all action, that may be mixed up with it, of the sensiferous. In fact, we have shown that, if the corporeal particles in which the fundamental feeling terminates move without losing their continuity, the feeling receives excitation, that is, acquires greater and varied vividness. Now, when we speak of the movement of particles, we speak primarily of an extra-subjective phenomenon. The subjective phenomenon corresponding to it is what we call greater vividness or variety in the feeling. The question, therefore, is: Can this change in the subjective phenomenon be called motion? But, 1.° The movement of each

felt particle, as we have seen, is not sensible, because the movement of the felt does not enter into the felt and is, therefore, altogether extra-subjective; 2.° The movement of two or more particles which move without losing their continuity does not, so far as regards extension, produce in the felt any other change than to increase in one part and become less in another, which is not motion, as we have seen; 3.° If the particles constitute an organ, and their internal movements succeed each other so that those in the first stratum move first, then those in the second, and so on; in this case, since there is a succession of motions, there must be a succession of excitations distributed through the various parts of the organ. Then the movement excited produces the phenomenon of internal movement; for it seems that the same sensation runs from one end to the other of the organ, which is all felt through the feeling of continuity. And this is the only motion that can be conceived as taking place in the fundamental feeling. It is a subjective motion due to the animal retentive power, which preserves the vestige of the preceding sensation, and still more to the rational retentive power, which preserves the memory of sensations experienced, and compares them. Nevertheless, we must recollect that the sensation is not numerically the same. Since one comes as another vanishes, it seems rather to be a series of sensations representing a movement, exactly in the same way as an image moves in a mirror, although no identical body is transferred in it from one place to another.* And since the question is one of phenomenal motion, that is, motion lying in feeling, there is nothing to prevent its having a kind of continuity, inasmuch as the felt is continuous, and the new sensation can begin where the first leaves off, or the two may overlap.

1250. With regard, therefore, to the sentient principle

* A body is said to be *identical*, although it be found successively in several places, because place does not form part of the essence or substance of a body; but the sension which is excited in different parts of the fundamental felt cannot be called identical, owing to the relation which it essentially has to the felt of which it forms a part: now, one part of the felt is not identical with another.

or the soul, there can be no reasonable doubt that it is wholly exempt from motion.

Our readers, however, must not think that because we deny *local motion*, both, to the fundamental felt and to the sentient principle, we therefore attribute *rest* to them. We do nothing of the sort. Rest cannot be attributed to what is incapable of motion, because these two terms are correlative. The truth is that here there is neither motion nor rest, for the same reason that where there is no extension there cannot be the point, which is the termination of extension.

1251. The conclusions we may draw from all these things are:

1.° That space, having no second or transient acts, does not require to have its mode of action explained;

2.° That body presents two activities, the *felt* and the *sensiferous;*

3.° That the felt has, properly speaking, no local motion, and that its action depends upon its being given to the sentient, and as it were placed in it; and this kind of action cannot originally come, except from the Creator, the author of feeling; hence, as we have already said elsewhere, the animate is not formed, but is given in nature;*

4.° That nothing remains to be explained except the action of the sensiferous, which is the cause of motion. Now, since this action depends on the *corporeal principle* as on its cause, and this principle does not fall within our perception, it is impossible for us to indicate how it performs its second acts, whether immanent or transient.

1252. But the mere knowledge that movement, and hence the conation to movement,† or the corporeal force,

* *Anthropology*, 323-349.

† The conation to move, or living force, might seem to be a fact from which we could infer the *continuity* of motion. But if we consider the matter carefully, we shall see that the inference is not by any means necessary. First of all, we must admit *impenetrability*, an undeniable characteristic of bodies. Now *impenetrability* limits the force which produces the motion of bodies, inasmuch as it prevents its producing the effect of the motion. But the force (for example, the sensitive principle) may still, according to its laws, continue to operate, and hence arises the conation to motion, though not continuous. Let us suppose a body gravitating toward another contiguous to it. If the first tries to place itself a thousandth

depends on the sensitive principle and an unknown agent, is sufficient to authorise us to conclude that the body does not pass to its transient acts by itself alone, but receives motion and force from the *sensitive principle*, as it receives existence from the *corporeal principle*, which may also be a principle of motion—whatever may be the occult manner in which it produces it.

1253. Now since, in bodies, force is considered as an immanent act, and motion as a transient act, we must point out the relation between this corporeal force and motion.

We have said that the felt-extended does not contain the cause of extra-subjective movement, or, if it ever did, it does not now, because, through having become a felt-extended, it has fallen under the dominion of the sentient principle, and has therefore lost its nature as a force. We must, therefore, consider the force as distinct from the felt, and determine it by its effects.

1254. These effects are:

1.° *Communication of Motion.*—When one body impinges upon another, the body struck, supposing it to be free, moves in the same direction as the other. This effect is reducible to *impenetrability* and *inertia*. As one body cannot penetrate the other, and, by the law of *inertia*, motion must be preserved, the one yields its place to the other with a velocity which stands in direct ratio to the quantity of motion in the impinging body, and in inverse ratio to the mass of the body impinged upon. But this fact does not relate to the beginning of motion, but to the communication of a motion already existing;

2.° *Conservation of Motion.*—By the law of *inertia*, a body once set in motion continues to move in the same direction. This effect supposes the cause of the motion as continuing to act; but this cause cannot be the body itself,

part of an inch within the place occupied by the second, it will press upon it, and, if able, force it to recede a little, which is the same as saying that the weaker body, to escape being penetrated, must make room for the stronger.

In order, therefore, to give an adequate explanation of the laws that govern the movements of bodies, it would be necessary to know the laws according to which force operates.

because bodies are indifferent to either rest or motion. It must, therefore, be an incorporeal force different from the body and acting on it;

3.° *Attraction.*—This is merely a conation on the part of one body to move toward another, a permanent conation. The permanence of this conation points to a cause of motion different in its action from the *cause of the conservation of motion;* for what observation deposes as to the cause which conserves motion is this: If two bodies of equal masses happen to move one against the other with equal velocities, and in the same line, they, on impinging, stop, destroying each other's motion, so that there remains the same quantity of motion, in the same direction. These two bodies, thus reduced to rest, remain in contact, without having even the conation to move in the directions they previously had, and without pressing against each other. The *cause of attraction*, on the contrary, produces a pressure by which they tend to penetrate each other.

Experience, therefore, shows that in the nature of motion there are three concurrent causes:

1.° *A cause which simply produces motion*, that is, makes a body pass from rest to motion, and *vice versa;*

2.° A cause which provides for the *conservation* of motion and its communication from one body to another;

3.° *A cause which produces the constant conation* of one body to move toward another (phenomena of attraction).

1255. The first and third of these causes, in our opinion, find a sufficient explanation in the motor activity of the sentient principle annexed to the elements of matter, and in the laws according to which that activity operates.

1256. The second cause implies another principle foreign to bodies, the principle which constitutes them, and, in doing so, imposes on them the laws of *inertia.*

According to these laws, motion in one direction is cancelled by the same amount of motion in the opposite direction. In this case the conation which the bodies have to penetrate each other ceases with the cessation of the motion, because such conation is due to the motion itself,

and not to the force which has caused it and has now ceased to act. All the laws of the conservation and communication of motion follow from this first one.

The force which produces motion is not extinguished even after having produced it; and if this cause is annexed to bodies, as in attraction, the conation which they then have to penetrate each other does not cease with the cessation of the motion, because it is not produced by this, this being itself an effect of that force, which does not change its nature as force.

1257. In the conservation of *simple motion*, the *motion* is renewed at every minim of time, but no conation is added to that which springs from the motion itself. Hence the motion becomes *uniform*.

1258. In the effect of *attraction* there is at every moment a renewal of the *conation* to move, which produces new motion, while the body is still moving in virtue of the conservation of the previous motion. In this way we have *accelerated motion, increasing in the ratio of the square of the moments*. To produce accelerated motion, therefore, two principles coöperate: (1) the principle of the production of motion, (2) the principle of its conservation.

1259. But since *impenetrability* destroys motion and the conation coming from motion, though not the *constant conation* which precedes the motion and is the cause of its production; it follows that, if two equal bodies moving in opposite directions in the same line come in contact, all motion ceases in them as well as all conation which could come from motion, and is always an instantaneous conation, that is, a conation lasting only during the moment of time which is necessary for the extinction of motion. When, on the contrary, two bodies approach each other through attraction, then, although, when they come in contact, their motion ceases (supposing them to be of equal mass), although it has been accelerated on the way in proportion to the square of the moments; yet the *constant* conation with which they tend to penetrate each other, or, at least (and this seems to me nearer the truth), to touch

each other in all their points, and gravitate to a common centre, does not cease.

1260. It is, therefore, evident that there are two forces which act in bodies: (1) a constant cause of motion already produced, and (2) a constant cause of conation to motion not yet produced.

1261. We have said that the *cause* of motion is certainly distinct from body, because motion is excluded from the essence of body. Can we say the same thing of the cause of conation to motion?

It must be confessed that the cause of this conation, which is also called *attraction* or *living force*, must operate incessantly in bodies, because all bodies (leaving apart the so-called imponderables, in regard to which the question is still undecided) attract each other. But that this conation does not enter into the essence of bodies is easily seen by considering that each body has all its own essence in itself, is limited to itself, and that nothing outside of it belongs to it. But attraction is directed by the *relation* of one body to another. The cause of attraction must therefore be, not a body, but an agent capable of embracing the relation of two or more bodies to each other. This seems a fresh confirmation of the opinion that this agent may be a sentient principle united to all corporeal atoms; because this opinion would entirely remove the difficulty. And since it is proved by experience that the sentient principle can be the cause of motion, the hypothesis, if it be such, possesses the two conditions demanded by Newton: (1) that it shall be something existing in nature, (2) that it shall have power sufficient to produce the effect.

In any case, it remains proved that matter is, by itself, inert, and hence, although it can receive motion, it has not in itself any power to produce it.

CHAPTER XV.

CONTINUATION.—ON THE ACTION OF THE SENTIENT PRINCIPLE, AND ON THE ORIGIN OF ITS TRANSIENT ACTS.

1262. The sentient principle, on the contrary, has an activity of its own, and is the cause of its own acts. But since no cause of transient acts is a full cause, because, if it were, it would produce acts as immanent as itself, we must inquire how the sentient principle can perform its transient acts.

We have said that the activity of the sentient principle is roused by its terms, but that, once it is roused, it belongs to it, and is directed in its operation by laws of its own. The activity of the sentient principle, therefore, has two parts, and, hence, transient acts may arise in it from two causes:

1.° From a change in its term, which is the *corporeal felt*, a change which does not come from itself, but from foreign causes. Here we must call to mind the opinion mentioned above, that every particle of matter has a feeling conjoined with it, because this helps us to understand how the term of a sentient principle may be enlarged by the union of feeling with feeling, on the assumed principle, that, where the felt is continuous, the sentient is one, just as two mathematical points, when coinciding, form but one point, neither more nor less. In the same way we may explain the diminution of the felt term, by one extended being divided into several, and thus losing its continuity. Here, then, we understand how it is that the sentient principle seems to issue forth into a new transient act, when in truth it remains unchanged, and has merely had its term made larger or smaller. And since, in the case of one felt-

extended being added to another, we can observe but two changes—1.° The subjective change consequent upon the two having been united by apposition, and which we have already explained; 2.° The extra-subjective change, that is, the movement by which they, from being wide apart, have been brought near so as to combine, and the cause of which movement we have also already indicated;—it follows that every change recognisable in the fact in question has been sufficiently accounted for;

2.° From the change which the activity of the sentient principle produces in its own term. In order to explain this, we must remember that the sentient principle, when once brought into being, has an act determined by its nature; but in this act the principle finds itself sometimes partially impeded by foreign causes, so that, when these impeding causes are removed, it displays the act completely. This displaying of its natural act is what we take for a transient act, and suppose to be a change that has occurred in it; but, properly speaking, it is only the first act, the self-same inner nature which, having been heretofore ill at ease, because bound by adverse agents, now puts itself in its proper, suitable, natural attitude. Thus the whole transient act of the sentient principle does not properly resolve itself into a new activity, but into the primitive one; and the only thing new in it is the removal of impediments from it, and, as a consequence, its being left what it is, what by its nature it ought to be. We will endeavour to make this concept of the transient act of the sentient principle still more clear.

1263. In the first place, we have supposed the sentient principle as posited in its first immanent act, the act which constitutes it the being that it is; and we have explained how this act takes place. We have shown that it depends on its term and the conditions thereof; that transient acts do not at all enter into it, and that they come afterwards, being acts of the principle already constituted in its nature. But this principle is brought into being differently, according (1) to the larger or smaller extension of its felt term,

(2) to the internal and excitatory movements of the feeling.

If it is brought into being solely by a continuous extension devoid of all excitatory movements, then its activity is restricted to feeling the extended that is given to it as term.

But if it is brought into being by excitatory movements also, then it has another act. The reason is, that the feeling of excitation is an act which, like every other, has durableness, that is, force, both, to preserve itself and to display itself according to its proper nature, on the principle we have laid down, that "every activity, every first act, has a natural state, which is that state wherein it exists in the fullest and most perfect manner possible for it." Now this feeling of excitation may find itself prevented from attaining the fulness and perfection of its nature and display; and this is why we have said above, that "between a term being fully given to a principle and its being denied to it altogether, there is an intermediate state, which consists in its being given imperfectly, so that the principle cannot be fully actuated; in which case there appears in it a *bad condition*, and a *state of combat* between it and its term" (1237).

1264. When, therefore, an internal excitatory movement begins in the term of the feeling, if this movement accords with perfect excitation, the sentient principle has the activity to preserve and continue it; * but this activity which (when no obstacles are in the way) perpetuates movement is not a new thing; it is simply the activity that existed before the feeling of excitation and which has power to preserve itself and endure as it is.

1265. But not every movement within the felt-extended is suited to call forth the display of the natural act of the excited sentient principle; because this act requires,

(*a*) A single harmonic movement;

(*b*) A movement returning upon itself like a circle, otherwise it could not perpetuate itself;

* *Anthropology*, 419-429.

(*c*) A movement as rapid as possible, saving, however, the first two conditions;

(*d*) The preservation of the contact and also of the pressure between one molecule and another, but this in a manner so regulated as not to interfere with the three previous conditions.

1266. Now the first act of the feeling of excitation is a virtue whose energy, though limited, being obliged to assume the most pleasant, perfect and natural attitude, tends to operate in such a way as to make the excitatory movement of the felt have the four conditions indicated.

1267. But sometimes it fails in this, on account of the opposition of adverse forces and virtues. Examples of this are,

1.° When the felt extended is approached by another extended, very diminutive, and, therefore, adapted to place itself sufficiently in contact with the first to form a continuation of it. In this case, if the second extended, which we suppose to have an organization of its own and to be under the dominion of another excited sentient principle, were to be agitated by internal movements agreeing with the action of its own sentient principle, but in disharmony with the internal movements of the felt to which it unites itself, there would necessarily spring up a war to the death between the two sentient principles, each trying to draw into its own vortex the common corporeal atoms. This is perhaps what happens in the case of poisons and the decompositions and recompositions which they produce in the living body;

1268. 2.° When a felt, within which the excitatory movements belonging to its sentient principle are perpetuated, is approached by an extended of the proper minuteness, but containing no movements or only conquerable movements, then the excited sentient principle, in order to assimilate it to its own felt, must cause in it likewise the proper excitatory movements, drawing it into its own vortex, thence dividing it into its minutest parts and distributing it according to the demands of the organiza-

tion of its own felt, in which these movements arise and which is formed by these same movements. In all this the sentient principle does no more than display its first act, place it in the attitude demanded by its nature; and this it does by an immanent and continuous act, the very same act which constitutes it in existence, and which was before impeded and bound up merely because it lacked the opportunity to display itself, or else it found an impediment in the term to which it was bound and by which it was conditioned.

This theory explains all the movements of instinct, which, in the last analysis, are only movements which the fundamental feeling goes through in order to bring itself into the most comfortable and pleasant, that is, most natural, arrangement and attitude possible.*

* *Anthropology*, 367-498.

CHAPTER XVI.

CONTINUATION.—ON THE ACTION OF THE RATIONAL PRINCIPLE, AND ON ITS TRANSIENT ACTS.

1269. Coming now to the explanation of the transient acts of the rational principle, we have seen that this principle has several activities, viz:

1.° The intellective activity, which has as its first immanent act the intuition terminating in ideal being;

2.° The perceptive activity, which consists in perceiving real being. This activity has, for its immanent act, the perception of our fundamental feeling; and then it has many transient acts, the explanation of which is found in the fact that they arise on occasion of the modifications of the fundamental feeling. Clearly, if this feeling is naturally perceived, its modifications must also be perceived.

As to external bodies, they also are necessarily perceived as sensiferous force, through that sort of violence with which they act in the fundamental feeling;

3.° The reflective activity. The explanation of the transient acts of this faculty has been given by us, at least in part. It rests upon the principle that "the transient act is merely the activity of the first and immanent act, furnished with an occasion to display and dispose itself in the way most natural to it." Reflection is moved to its transient acts in the following ways:

1270. (*a*) By the animal instinct, whose acts are transient acts of the animal fundamental feeling. This feeling being naturally perceived by man, all its instinctive movements are, as a matter of course, perceived also. When, therefore, man's animality is moved and agitated in order to satisfy some need, the rational perception

accompanies all these movements and actions. Having thus come to participate in the needs of man's animality, his rational principle exerts itself with all the forces at its command—including the rational ones—to secure the desired satisfaction.* Now this obliges it to fix its attention upon means and ends, which is a reflection upon its own perceptions. All this process on the part of the understanding is invariably set in motion in accordance with the principle we have indicated, "that the subjective feeling naturally places itself in the most convenient and pleasant attitude." Attention or reflection can fall alike upon all terms that are proportioned to it: but unrest, need, &c., are new terms given to it; in these, therefore, its activity finds as it were new outlets for exercise, just as water contained in a vessel rushes out as soon as it finds an opening, and this not from any new virtue added to it, but by the same gravitation and pressure which it was exercising all along and which was counteracted by the resistance of the continuous walls of that vessel;

1271. (*b*) By the rational instinct in a similar way. As an example, take the case of curiosity. At the sight of an extraordinary occurrence there will spring up in us spontaneously the desire to know why that cause which previously produced one effect, now produces another quite at variance with our expectations. Reflection turns to it, and is not satisfied until it discovers the answer. The reason is, that when the mind meets with an apparent contradiction, its rational act is not complete or settled until that contradiction is removed. Being, which is the term of thought, is free from contradiction, and therefore thought is not at rest unless it clear away the contradiction and so restore its proper term. The same may be said of any puzzling scientific question or difficulty. The new object, by presenting itself to the intelligence, opens a way for the act of reflection which naturally desires to grasp it completely;

1272. (*c*) By a decree of the will. When the will has

* *Anthropology*, 530-534.

proposed to itself an end, it necessarily impels reflection to seek for the means to its attainment. Were it otherwise, the act of the will would remain shrunken and maimed, contrary to the need of its primitive activity;

1273. 4.° The voluntary and practical activity may be explained also in other ways. But the rational principle never passes to that species of transient acts which are called voluntary, except in consequence of new objects given to it by the other powers. These objects, being new terms, call forth and provoke the evolution of new activities, and this always on the same principle, that "the first immanent act of the soul, when it receives new terms, is no longer in a satisfying state, but naturally displays its activity, which previously existed only in the form of a conation kept from displaying itself by the absence of suitable opportunities;"

1274. 5.° Finally, there is bilateral liberty, the transient acts of which are, as we have seen, the most difficult to explain. The knot to be unravelled here is this: If the first and immanent act of the soul displays itself naturally whenever it receives new terms, and if this display of the primitive activity is nothing but that same activity which by a law of its nature adjusts itself to the most pleasant and convenient state, does it not follow that the transient acts are necessary, that is to say, determined, on the one hand, by the nature of the first and immanent acts, and, on the other, by the quality of the terms applied to it? And if so, how can bilateral liberty or, as it is also called, liberty of indifference, be said to exist?—When we consider this power of bilateral liberty, we seem compelled to say that it is set in motion by the subject itself independently altogether of the terms given to it, and in this case we fall back into that very difficulty which we are endeavouring by such a long course of reasoning to remove, and which, if not removed, leaves the transient act unexplained. In truth, this act either (1) has its full cause in its subject (immanent act), and then it must cöexist with the subject and no longer be a transient, but an immanent act; or (2) it has not its

full cause in the subject, and then it depends upon the terms of that subject (for every excitation given to the subject by a foreign agent is also itself a term), and consequently implies necessity; or else (3) it springs from the subject, without there being the possibility of finding its full cause, and then we find ourselves in conflict with the principle of causation. Whoever considers the matter attentively will see that it was exactly on account of this apparently most grave difficulty that so many philosophers, even the most acute, denied bilateral liberty altogether.

But they were wrong, and their error arose from an insufficient investigation of the nature of this power. Those readers who have meditated well upon it as described by us in the *Anthropology*,* will readily find the way by which a difficulty so formidable at first sight can be completely dispelled. Let us see how:

First of all, it is necessary to determine with precision what is the term or object proper to bilateral liberty. This we have found to be "the choice between two contrary volitions." †

Now the essence of liberty does not consist in choosing or not choosing, but in the manner of choosing, that is, in choosing, when one does choose, one of the two volitions in preference to the other.

When, therefore, two volitions are presented to the human subject to choose from, if no act of choice is made,

* Bk. III, 636-643. We hope the fair-minded reader will not attribute to want of modesty or propriety our frequent recommendation of serious attention in certain difficulties. The questions we are often obliged to treat are at once so subtle and so delicate that no human intelligence may justly look upon them as easy or such as to be grasped in a moment. We will, therefore, presume to make the words of St. Augustine our own: "*Huc accedit, quia non tu et tales tantummodo cogitandi estis lecturi esse quod scribimus; sed utique et illi qui minus acuto minusque exercitato ingenio præditi, eo tamen studio ferantur ad cognoscendas litteras nostras, sive amico sive inimico animo, ut eis subtrahi omnino non possint. Ista cogitanti cernis, quanta cura in scribendo esse debeat, præsertim de rebus ita magnis, ut* IN EIS ET MAGNI LABORENT." Epist. clxii.

† This mode of expression does not exclude the choice between volitions which are not contrary, but only diverse; because when a choice is made between several different volitions, several acts are performed by which one chooses, between each of those volitions, the adopting or non-adopting of it, which is choosing between contraries. Hence any choice between volitions may always be reduced, as to an elementary operation, to a choice between contraries.

there is no act of the will; and if a choice is made, there is this act.

Even supposing, then, that in making this choice or in not making it, man were determined, or that he were moved to perform such act by a spontaneous necessity, he would not on that account be deprived of his liberty, provided that, in performing the act, he remained free to choose the one volition rather than the other.

Given, therefore, that, on two volitions being presented to him to choose between them, he is moved to this transient act by the new term given to his immanent activity, that is, by the two contrary eligible volitions and the need to choose between them, and given also that he is moved necessarily to perform the act,* he is not necessarily moved to perform it in the one way rather than the other, namely, to choose the one rather than the other of the two eligible volitions. He may choose whichever of the two he pleases, and is, therefore, free, perfectly free. Consequently, this liberty does not belong to that part of activity which comes from the term, but to that which belongs to the principle already constituted and actuated.

1275. But someone might ask: What is the sufficient reason that explains how the one volition comes to be chosen in preference to the other? I would reply to him thus: Your question shows quite clearly that you have not yet properly understood the force of the definition we have given of bilateral liberty. For, if this liberty is "the faculty of choosing between two volitions," plainly, its act consists in choosing, or, which is the same thing, in man determining himself to the one volition rather than the other. Therefore, liberty is not the faculty of the volitions themselves, but the faculty of deciding as to which volition shall prevail. The sufficient reason, therefore, of the choice is the faculty itself, the activity of the choosing

* It will be said that man is free also in making or not making the choice. Most true; but in this case the choice that becomes the *object* of his choice is one thing, and the *act* really performed by him of choosing between the two alternatives is another. The necessity which we admit refers to the act of choice, and not to the object thereof. With respect to the objects of choice we maintain that man is free.

principle, which, when moved by the presence of its term, comes forth into its act, that is, chooses between the volitions. It is drawn to its act necessarily, like the other powers, the cause of the act being completed by means of the new term added to it, that is, the two volitions. Thus the act to which it is drawn necessarily is the free act, which is its proper act, and consists precisely in the choice in question.

CHAPTER XVII.

SUBJECT OF THE FOLLOWING TWO BOOKS.

1276. Having in the preceding disquisitions reduced all the powers of the soul to unity, that is, to the essence of the soul itself, and having, as we trust, overcome all the ontological difficulties that stood in the way of an explanation of its transient acts or operations, and having, at the same time, investigated the nature of these acts, their ground, and the manner in which they appear and disappear; we may now enter safely upon the subject which we proposed to ourselves, that is, the explanation of the laws governing the different operations of the soul.

Seeing that the soul is one and simple, because all its faculties are reducible to the *rational principle*, in which the completed and entire essence of the soul properly consists, it is obvious that, if we can succeed in giving a satisfactory account of the laws according to which the rational principle acts and is acted upon, we shall have fulfilled our promise and accomplished our purpose.

1277. But, although the soul of man is one, he has two principles of action, the one of which is himself, while the other is in him. The former is the rational, the latter, the animal principle. When man is said to be composed of body and soul, this must be understood of an *animate body* and a *rational soul;* for it would be an error to divide man by placing brute matter on one side and the sensitive and rational soul on the other. The intellective soul is the form of a sensitive body, and not of bare matter.* This

* In the Bible, man is *flesh* and *spirit*. Now, by *flesh* is always meant, not dead flesh, but flesh living and fighting against the spirit. This is the true and philosophical division of the principles that enter into man's composition.

fact, so far from destroying the unity of the soul, goes to confirm it, because the soul is also the supreme principle of feeling in so far as it perceives feeling as entity. At the same time, this explains, as we have already said, why there sometimes appears in man a sensitive activity rebelling against the rational and human principle, since the fundamental perception does not destroy the sensitive activity, though it is naturally ordained to dominate it; for if it were not so ordained, a contradiction or strife between animality and reason would imply that these were two souls.

We shall, therefore, devote the following book to the explanation of the laws according to which man, that is, the *rational* principle, which includes feeling under the *essential relation of entity*, operates; and the fifth book to the explanation of the laws which govern the operations of the animal principle, considered by itself, that is, under the *essential relation of sensility*, which principle is not man, but is in man. In treating, moreover, of the sensitive principle, we shall, as far as necessary, speak also of that activity which, though different from it, manifests itself in it, and sometimes in opposition to it, namely, of the sensiferous force.

BOOK IV.

(SYNTHETIC.)

ON THE LAWS WHICH GOVERN THE ACTIVITY OF THE SOUL.—LAWS ACCORDING TO WHICH THE RATIONAL PRINCIPLE OPERATES.

1278. Logical exactness, and Christian sentiment, are the two characteristics of the Italian people. Hence, whenever writers have been logical and religious, they have pleased this nation, while those who stepped aside from right reasoning and the truths of faith, no matter how rare their powers of intellect and how vast their erudition, were reproved and forgotten by its public opinion. Herein lies the true reason why Italy flourished in the natural sciences under the teaching of the immortal Galileo, and seemed old, lazy and slow to respond to the invitation of those very strong intellects that professed philosophy in the sixteenth century. The mathematical sciences could not advance without logic, and the voice of the great Florentine no longer allowed it to be dispensed with in physics. Neither was it possible that the study of nature, conducted under the guidance of rigorous reasoning, should come into conflict with religion. Unfortunately, metaphysical investigations are not, like mathematics, of such a nature as to reduce the student to the necessity, either of keeping the path of legitimate reasoning, or else of being immediately convicted of error. But heaven did not vouchsafe a Galileo

to philosophy; nor are the teachings of this science indifferent to the passions and vices of men; nor were they who undertook to play the philosopher in the age of the tenth Leo sufficiently free from these passions and vices; nor, again, did they escape the malign influence of the northern heresy. Hence the genius of Italy repudiated the sophists, and sometimes, going beyond proper bounds, it burnt the impious. In this way Italy was deprived of philosophy, without which it could not be a nation. For, if other peoples, of other blood, of a different genius, educated in narrower traditions and through less sublime misfortunes, were able to unite together and attain to a national spirit as if by instinct and without advanced scientific culture, the Italic race could not do so, nor will it ever be possible for it to do so, except under the guidance of a true philosophy. The fact is, this race must, first of all, be bound together by intellectual principles, which, being logical, are also religious; and it is vain to think that, without this first bond, other bonds can produce a true national unanimity between the peoples of our peninsula. Indeed, if religion and logic are, as they seem to be, the only sentiments that have remained common to the Italic family, it need not be said how powerful an influence the spread of a sound philosophy must have in binding Italians together as fellow disciples in the school of truth, and in developing in the heart of the nation these two most powerful germs of good government, as also in rendering us all conscious that our minds agree in one rightness, our souls in one Faith, and our common ambition in the supremacy of the Christian Pontificate. Thus the concord of Italians will spring from their inmost character and nature, truth itself, God Himself intervening as mediator; and this will be a concord of the strongest and most lasting kind, capable, by its own inherent virtue, of advancing and completing itself in every other civil requirement, because this most sacred concord will begin at the very place where man himself resides, where he is master, in the reason, where alone he is nobly a servant, in the worship of God.

1279. The geometry and physics cultivated by the Italians with so much love were only a most fortunate propædeutic; and it seems to me that the Supreme Providence has kept the Italians so long occupied exclusively in the mathematical and physical sciences as a most useful preparation for the higher and more important sciences, the philosophical and the civil, for which an excellent preparation is also furnished by the literature and the fine arts, for which other nations envy us in vain. Hence Plato wisely refused his divine instruction to those who came to him without being already well schooled in geometry; and a fitting ornament of the philosophic school, and quite proper as a suite to philosophy itself, are the comely graces of Socrates. Never do these graces appear so exquisitely beautiful as when they learn to philosophise.

Let it not be said that the logic of the natural sciences is a peculiar art, different from that required by metaphysics. There is but one logic, one art of thinking, just as there is but one truth. It was by holding the erroneous opposite opinion that some of our most able cultivators of what are called the exact sciences were led to look contemptuously on metaphysics, as though this science could not lend itself to that rigorous demonstrative process without which it is almost always impossible to treat the sciences of naked quantity. Nor would such contempt be unjust if those ill-advised persons were in the right, who, presuming to know everything by, as it were, a sort of divine inspiration, found fault with me, and cried me down, for having desired that Italian philosophy also should, at last, in its procedure, faithfully obey the laws of human thought by setting out with the observation and verification of facts, and by means of these facts work out most exact reasonings. But I cannot on this account alter my opinion in regard to the soundness of the method—experimental I would almost call it—which I have hitherto striven to recommend to our countrymen, who are already beginning to aspire to the ranks of philosophers, and which I have, to the best of my abilities, followed in philosophical investigations. Indeed, I do not

know any other process that can be called method; because as to that divine intuition in which some think they contemplate everything both created and uncreated, gathering everything immediately from the voice of the Deity, I would fain leave it to the priests of the ancient oracles, or to those who are drunk with the waters of Aganippe, only continuing to desire that they may be strictly forbidden to enter the temple of philosophy. Without some such prohibitive law as this, the Italians will never become philosophers, but will have to content themselves with being naturally poets.

1280. Hence, I have entitled this book, *The Laws according to which the Rational Principle operates;* my intention being to imitate here also the students of nature, who, collecting facts similar in kind, note carefully and accurately what is identical in them, and thus discover the *constant modes* of the action of causes frequently occult, and give those constant modes the name of laws. After all, what they call *laws of nature* are only the identity and constancy of the effects which appear in the reciprocal action and passion of the corporeal substances that go to make up the world. From what they find always the same in these effects, they reasonably infer the mode of action of the cause, and hence conclude that the cause has such or such a form, or nature, or disposition, that it cannot act in any other manner. This necessity of acting always in the same way they justly call a law, because law means "necessity determining action," although the necessity to which this name is given is sometimes physical, sometimes moral. At first, the term was applied to moral necessity; then it was transferred to physical necessity. We must do exactly the same thing in the study of the operations and effects depending upon invisible and spiritual causes. The dialectic process of thought must be the same. In the first place we must carefully observe and collect the operations of the rational principle; then note with the greatest accuracy what appears identical in them; then infer by induction the constant mode in which the cause operates;

and, finally, conclude that there must be, corresponding to this immutable constancy and uniformity, a necessity obliging the cause to shape its operations just in that way, and that this necessity, termed *law*, can have its root nowhere but in the nature of the operating substance or cause, since the nature and substance are the immutable and immanent acts, as contradistinguished from their transient actions and effects.

1281. But since the laws which we must collect will be many, we shall, in order to impart order to our work, first consider the principal sources or elements from which the operations of the rational principle spring, and to which our attention must be directed. These elements, when accurately distinguished, will afford us a first general classification of the laws of which we are in search.

CHAPTER I.

CLASSIFICATION OF THE LAWS WHICH THE RATIONAL PRINCIPLE OBEYS IN ITS ACTION.—LAWS ONTOLOGICAL, COSMOLOGICAL AND PSYCHOLOGICAL.

1282. "It was Anaxagoras alone who said that the intellect [νοῦς] is indivisible and has nothing in common with other things. But, this being the case, how and for what reason the intellect cognises, he has neither told us, nor does it appear from what he has said." *

Now, for Anaxagoras, or Hermotimus † to have found out that the intellect must be perfectly simple, was, in the Ionic school, a great step forward; but, as Aristotle observes, there still remained to be discovered the manner in which the intellect knows, the *means of knowing*, and also the way to explain by what causes the intellect, being perfectly simple, could be moved to know especially the corporeal.

1283. These were questions of supreme importance, and neither Aristotle nor any of the ancients was able to reply to them adequately. For, confining ourselves to the question respecting the means of knowing, we find that Aris-

* Aristotle, *De Anima* (I, 2, 22; 405 b 19 sqq.). A little before this, he had written: "But Anaxagoras seems to have distinguished soul from intellect. . . . . Nevertheless, he treats both as if they constituted one nature, except in so far that he made intellect the cause of all things. He says, indeed, that it, alone of all beings, is simple, unmixed, and pure. But he attributes to the same principle indiscriminately both things, that is, cognition and motion, saying that intellect moved all things generally" (*De Anima*, I, 2, 13; 405 a 13). There was, however, a report current in the time of Aristotle, that Hermotimus, a countryman of Anaxagoras, had, previous to him, affirmed intellect to be the cause of the universe (*Metaph.*, I, 3; 984, b 19 sq.). Hermotimus and Anaxagoras fix the period in which the two schools, the Ionic and the Italic, mingled their doctrines. Thenceforth the two schools treat the same questions, and are sometimes distinguished more in name than by difference of opinions. See *Restoration*, &c., Bk. III, chap. li.

† Both were natives of Clozomene.

totle applied to the spirit ontological principles that were too narrow, not being derived from beings generally, but from material being alone. Now, seeing that in material nature there is matter and form, the former passive and the latter active, the former becoming all things, that is, all the special corporeal beings, the latter doing all things, that is, placing these entities in existence by giving shape to matter, he thought that the same elements must be sufficient to explain the constitution of the intellect also.

"Since," he says, "there is *in all nature* something which to each genus is matter, because it is capable of becoming all things, and there is something else which is cause and efficiency, because it does all things and, relatively to matter, stands as art; it *necessarily* follows that these differences are also found in the soul. And in truth there is in the soul an intellect such that it becomes all things, and another such that it does all things, as a kind of a habit, similar to light; since light also, in a certain way, causes those to be colours in act which, before, were colours only potentially; and this intellect is separable, and unmixed, and not susceptible of division; and its operation is its substance. For the agent is always more noble than that which is acted upon, and form more noble than matter. And as to knowledge, when it is in act, it is one with the thing." * Thus Aristotle agreed with Anaxagoras in holding that there is an intellect unmixed and immaterial; but this, he says, is *knowledge* itself in act, prior to which there is in the soul a sort of matter of all cognitions. In this way he believed that he had overcome the difficulty urged against the teaching of Anaxagoras, namely, that by admitting a purely immaterial intellect, he made it impossible to explain how this intellect came to acquire knowledge, and how it could be moved to cognise material things.

1284. But several objections may be taken to Aristotle's reasoning. 1.° That reasoning sins against the laws of correct method. Aristotle starts with the assumption that in *all nature* everything is composed of form and matter,

* *De Anima*, L. iii.

without giving any proof of so sweeping a generalization, but simply falling upon experience and that only of material things. Then he concludes that this must *necessarily* be the case with the soul also, whereas he ought to have contented himself with examining whether the thing was so in point of fact, and not to have imposed ready-made canons on the nature of the soul, and *a priori* laws, which are always arbitrary and fallacious.

1285. 2.° Again, by saying that the *possible intellect* becomes all things, that is, all cognitions, he renders cognitions subjective; for, according to this view, they would be merely the soul itself variously modified, and, therefore, would be contingent, &c., like the soul itself, mere feelings of the soul, without any power to give evidence of an object distinct from the soul.

1286. 3.° If the last words of the extract I have quoted must receive the interpretation given to them by Michael Soffiano and others, *Idem autem est scientia quæ actu est, quod res ipsa*, it would follow that, as all cognitions are the soul itself variously modified and actuated, so all things are the soul, which is the *panpsychism* of many German philosophers.

1287. 4.° If the *active intellect* is cause, efficiency, a principle acting as art or habit does, it follows that it is not entirely in act. Our philosopher did indeed, by means of his possible intellect, assign the material cause of cognitions, of which Anaxagoras had not spoken; but his active intellect does not sufficiently explain either the efficient full cause, or the instrumental cause of them. In order to come forth into act, habit requires an excitation, especially if it has to be determined to produce from matter one thing rather than another, for example, from a block of stone the statue of Apollo rather than that of Hercules. So likewise art, in order to produce the statue, requires instruments.

1288. 5.° Aristotle meets on his way the beautiful simile of light, which might have set his thoughts right; but he makes a very bad use of it. The potential colours which he

introduces are not colours at all, and colours in act are the light itself modified and refracted. Moreover, the eye which sees is quite a different thing from the light which causes it to see; whereas in Aristotle the intellect, which is the eye, is confounded with the light which illumines it—the *object* with the *subject*.

This great distinction, therefore, between object and subject is what was wanting in the philosophy of Aristotle, and the only thing that could fill up the blank which Anaxagoras had left to be filled up by subsequent inquirers.

1289. We have shown what is the light of the mind; we have said that it is the *idea of being*, and that this is the *means of knowing*.

Although, therefore, the human intellect, as Anaxagoras held, is unmixed, it nevertheless has a duality, and this removes the difficulty which Aristotle brought against the illustrious philosopher of Clozomene, because the intellect is furnished by nature with a *means* of knowing. At the same time, the erroneousness of the method which Aristotle considered effectual in overcoming the said difficulty is proved.

1290. In order that the differences between the method propounded by ourselves, and the Aristotelian one, may be clearly seen, we beg the reader to observe:

1.° That Aristotle, by describing the intellective soul as consisting of matter and form like the material nature, made it result from two elements, each of which was a substantial part of it, and the form even more substantial than the matter. We, on the contrary, do not make *ideal being* a substantial part of the soul, but merely an object which is given it to intuite, and which thus brings it into act and being without confounding itself with it, and without leaving anything in it except knowledge. In this way the intellective soul remains, for us, altogether unmixed, although it is united to something else entirely different from it, which illumines it;

1291. 2.° That Aristotle makes the soul result from a

form similar to those of real beings, a form which is itself also a *reality*, is the act of reality. We, on the contrary, say that *ideal being*, though it informs the soul, does so in quite a different way, preserving its own proper entity, which is wholly different from that of the soul, and merely giving itself to the soul to cognise;* and to forms or informing causes of this description we give the name of *objective*. Being essentially light, they, by their presence in the spirit, impart to it that act of intuition, which in a certain sense might also be called a *subjective form*. Considered under this aspect, objective forms are *causes of subjective forms;*

1292. 3.° Aristotle attributes to the intellective soul something corresponding to the matter of bodies, and by which he says it becomes all things. We do nothing of the kind. According to us, the soul always remains a perfectly simple principle. And, properly speaking, it is not made up of form and matter, but of act and potentiality. It is act before it is potentiality, and it is potentiality not *per se*, but by reason of changes in its terms, as we have explained.

Here, however, the Aristotelians may reply: "How then do you account for the origin of special cognitions?"

We reply: The rational soul is what apprehends being, and being is *ideal* and *real*. *Ideal being* is given to the soul by nature, and being, in this form, is essentially unlimited. There is also given to it by nature a limited *real being*, in the fundamental feeling, which is rationally perceived by it, because already comprised, after its own way, in ideal being, which comprises all things. The relation between *limited real being* and *unlimited ideal being* constitutes the *concepts*, or specific and generic ideas. But neither ideal being, nor the real being naturally perceived by the soul, is the soul itself; it is something joined to it by the peculiar relation, which, to distinguish it from every other, we have called *rationality*. In this way the Aristotelian difficulties

* *Philosophical System*, no. 35.

disappear completely, without our breaking on the rock on which the philosopher of Stagira broke.

1293. By having described the constitution of the soul, and explained the possibility of its action and development, we have paved the way for the classification of the laws which it invariably follows in its operations. For, its activities, like those of every other finite being, issue, and, so to speak, gush forth from two springs—its term and its principle. Moreover, the term is double, Being and the World (the finite real). In this way we have three sources of laws: Being, the World, and the Activity of the Rational Principle. The laws, then, of the action of the rational principle naturally classify themselves into three most noble kinds, namely, *Ontological Laws*, *Cosmological Laws*, and *Psychological Laws*. We shall begin by dealing with the laws which the nature of the object imposes upon the rational principle in its action; in other words, we shall begin by the *Ontological Laws*, which can never be absent, whatever may be the being to which, as to an object, the action of the soul is directed.

CHAPTER II.

ON THE ONTOLOGICAL LAWS IMPOSED UPON THE SPECULATIVE REASON, AND WHICH THE RATIONAL PRINCIPLE FOLLOWS IN ITS OPERATION.—SUPREME LAW.

ARTICLE I.

Enunciation of the Supreme Law of Thought.

1294. Now, since the rational principle operates in two ways, the one speculative, producing no effect outside the mind, the other practical, which does produce such effect, we must consider, both, the ontological laws which the object imposes on the speculative reason, and those which it imposes on the practical reason.

1295. And, first of all, we must consider the supreme and most general law, which consists in the *principle of cognition.*

In truth, all other laws are contained and summed up in the principle of cognition, which is thus formulated: "The term of thought* is being." This is the same as to say: Thought is so constituted that the primary law of its nature is to have being for its term, so that it either has being for its term, or it is not at all. Being, therefore, considered in this way, is the condition to which the existence of thought, the speculative action of the reason, is bound.

1296. It follows from this, that the properties and endowments essential to being are so many conditions of thinking and, therefore, so many laws of thought. This means

* *New Essay*, vol. ii, no. 567.

that every thought, in order to exist, must have a term endowed with all the qualities and endowments of a being.

But here it must be noted, that when we speak in general of the laws of thought, we do not mean that these laws must be observed in every special act of thought, separated from all its other parts by means of abstraction. We are considering thought taken in its complexity, as a total resulting from the sum of the single and partial acts which man severally revolves between times in his mind. For example, a man thinks a real line; this is a particular act. But he cannot think a real line without thinking a surface of which the line is the termination. Were we, therefore, to say that it is a law of thought, when applied to corporeal extension, that it must think surface or solids, the objection could not be raised against us that it thinks also lines and points, finding them by abstraction in the surfaces and solids perceived by it; because the special act whereby it thinks the abstract point or the abstract line is not an act which stands by itself, but one that is accompanied and conditioned by the thought of the surface or solid in which the line or the point is seen. Hence it follows, that in the complex thought of corporeal extension the surface or the solid is not wanting; and this is enough to fulfil the law of thought. When, therefore, we say that it is a law of thought that it seizes a being with the qualities which constitute it a being, we do not mean that one cannot by abstraction think some quality of the being separately from the others; although in reality it could not stand by itself. What we mean is, that this abstract quality cannot be thought unless we first think the being, and know that it belongs to and is in it. In every complex thought of the human mind, therefore, a being is conceived with its essential conditions. So much is this the case, that, supposing we were supplied by the sense with an accident of a being, for example, with colour, our mind, in order to think it, would have to add to it the substance, which the sense does not furnish, and this precisely because the accident

would not be a being without the said substance, as we have shown elsewhere.*

ARTICLE II.

The Supreme Law expressed in Two Propositions.

1297. The above is sufficient to remove the objection which some might raise against the principle of cognition from observing that abstract thought stops at accidents, which, taken by themselves, have not the properties of a being. Abstract thought is part of a thought, not an entire thought. The former is never in the mind without the latter being also there in some way. But here we must add another most important observation. Thought has many kinds of acts, which do not all apprehend being in the same manner, or with the same fulness. It is, therefore, necessary to explain more minutely the efficacy of the principle of cognition in giving form to human intellections. This efficacy may be expressed in the two following propositions:

1298. 1.° "The human understanding cannot think of anything as having properties contrary to those which are essential to being."

1299. In virtue of this law, the human spirit cannot think of a thing as existing and not existing at the same time, because in being there is no contradiction. Herein lies the origin of the principle of contradiction, which the Greeks expressed by saying τὴν ἀντίφασιν οὐ συναληθεύειν.

1300. It may be objected: But we think naught; we think negation. Now naught is the opposite of being, which expresses something. It is not, therefore, necessary that being should always be the object of thought. I reply: It is true that naught is contrary to being; but if we consider carefully, we shall find that naught, as such, neither is, nor can be, the object of thought. When, therefore, we think naught, we in reality think a relation which a contingent being has to thought and to itself, a relation by

* *New Essay*, vol. ii, 610, 611.

which we see that that being either is, in which case it is thinkable, or is not, in which case it is unthinkable. Now the expression *is not* simply means two combined acts of one and the same thought, by the one of which acts we think the being, while by the other we remove it, and thereby abolish the object of the thought. That the *naught* of which we think is not properly naught, but a relation of the being in question, will be readily understood by anyone who reflects on the manifold reasonings which mathematicians institute about naught, and the different species of naught which they admit. This has all been very cleverly explained by Giuseppe Torelli in his book *De Nihilo Geometrico.* The same thing may also be seen from the modes of expression current among ascetical writers, and which are the very reverse of erroneous, as for instance: "Man is nothing;" "All is nothing, God alone excepted." A person of great spirituality was wont to offer up this prayer: "O my God, I am a sinful nothing; make me, I beseech Thee, a sinless nothing." In this invocation I find a wonderful deal of truth and logical accuracy, inasmuch as the naught spoken of in it is, obviously, not pure naught, which, of course, would be incapable either of sin or of sinlessness, but a relation of man, who, considered by himself alone and wholly independently of the Creator, is nothing, because without the Creator he would not exist.

1301. 2.° "Although the human understanding has always being for its object, nevertheless it is not necessitated to think all the properties of a being in the same way. Some of them it must think actually; others it may think only virtually. What it is obliged to do as regards these is simply not to deny them, that so the way may be kept open for it to inquire into them. What it cannot help thinking actually is the *ideal essence* of the being apprehended by it; but as to the properties and relations which belong to that being and are virtually comprised in its ideal essence, even though they be necessary to the constitution of the being, the law of its thought does not necessarily bind it to conceive them in an actual manner, it being sufficient, as I

have said, that it does not deny them, and that they thus remain to it as matter for subsequent investigation.

1302. This most important law renders possible the various modes of intellection proper to man, and assigns to each its special laws. Let us see what ontological laws each mode of intellection obeys. The chief modes of intellection are: 1.° Intuition; 2.° Perception; 3.° Reflection, which is exercised either by abstraction or by integration, and hence is divided into (*a*) Abstracting Reflection, (*b*) Integrating Reflection.

ARTICLE III.

Law of Intuition.

1303. Since *intuition* has ideal being for its object, it is manifest that this act of thought extends to being in so far as it is in its ideal form, apart altogether from its other two forms, reality and morality.

1304. Here we must take into consideration an ontological principle of no small moment, which may be thus stated: "Although being exists in three modes, nevertheless it is complete in each of them, because each of them, in its own fashion, embraces the whole of it." Hence intuition embraces the whole of being, and it cannot be said that an act which refers to the whole of being lacks anything that thought requires, because thought requires nothing more than to have being for its object.

1305. Moreover, since being in its ideal form is simple and indivisible, it cannot, in this form, be given to the understanding except as *all* or *none*. On the contrary, being in its real form, being divisible and multipliable, may be given to it partially, in which case it cannot be thought alone, because lacking a part necessary to make it a complete being.* But supposing that the human under-

* But if the whole of the real were given to an intelligence, would this be able to understand it? We must remember that in the absolute real there is the ideal also, and hence that the whole of the real cannot be given to it unless the ideal be given at the same time. The same thing, and for a much stronger reason, must be said of moral being which requires the union of the ideal and the real.

standing has already before it the whole of being in the ideal form, it no longer lacks the complete and entire object necessary to it. Given this, the parts of the real also can be thought, because these do not cancel ideal being, but merely add some fresh term to thought. Thought, therefore, is possible as soon as the whole of being is given to it under the ideal form, and for this reason we have said that ideal being is what informs thought and constitutes the power of thinking.

ARTICLE IV.

Law of Perception.

1306. In order, then, to explain *perception*, or that operation of the rational principle which apprehends *real being*, we must presuppose the intuition of ideal being, which is the light and means whereby every real is known.

This truth is seen only by those who meditate deeply on the nature of perception. Many persons persuade themselves that when they perceive a real, for example, a body, the object of their perception is a *particular* and nothing more. They never succeed in resolving the object perceived into its two elements, of *possibility* and of *reality* —of the *idea* in which the cognisable essence of the said body is seen, and the simultaneous *apprehension* whereby the realisation of that essence is affirmed.

If you wish to convince yourself that your mind does not perceive a body without embracing by its act both these elements together, ask yourself this question : "Do I know what I have perceived ?" You will at once reply : "Yes, I do; it is a round body, about the size of an orange, yellow, glistening, hard, a ball of ivory. Such is the concept of the body I have perceived." Now please to consider attentively : Does this concept include the *subsistence* of the body ? Clearly not; because, so long as you think merely this concept, as expressed in your definition of it, you do not yet know that the body in question exists. Therefore, I conclude, to know that that body really subsists is a different

thing from having simply the concept of it. But by perception both these cognitions are acquired, that of the concept, and that of the real subsistence of the body. Consequently, every perception embraces two things at once, is the compound result of two acts of the spirit performed simultaneously, namely, the intuition of the concept and the persuasion of the subsistence; nor is it possible for us to become persuaded that a thing subsists unless we have the concept of it. Hence, in the logical order, the concept in and through which that thing is known precedes the persuasion of its subsistence.

Another way to convince ourselves of the same truth is to consider that, as soon as we perceive any contingent thing, we at once know its possibility, so that if we were asked: "Is such a thing possible?" we should at once reply: "Of course it is; it exists, therefore, it is possible." Now, how do we know that what exists is possible? Where do we get the concept of possibility? From no other source, certainly, than from the concept which we have of the thing. That concept gives us knowledge of the cognisable essence of the thing, but does not tell us that it subsists, we therefore conclude that the thing contemplated in its concept might either subsist or not subsist, and therefore, that to know whether it subsists, we require some other indication, and in perception this indication is the feeling we have of its action in us. Possibility is included in the pure concept of the thing in so far as that concept does not show the thing as necessarily subsistent. Now this concept shows us the ideal being of the thing. If, therefore, in perception we did not think the ideal being of the thing, we should not know its possibility. The origin, therefore, of the thought of possibility implies that in every perception, besides the reality of the thing perceived, we intuite its ideal concept.*

1307. But what is the ideal concept of a being? Simply

* Another proof that in perception the idea of the thing is intuited at the same time that the reality of that thing is felt and affirmed, may be derived from the undeniable fact that, simply by forgetting that we have perceived the thing in its reality, the pure idea of it remains in our mind, without any other operation being needed in order to form it. See *New Essay*, &c., vol. ii, no. 520.

the universal concept of being, limited and determined by the action of the thing in us, that is, by the feeling which the thing produces in us. Because, when I say, for example, "The concept of a ball of ivory," I say neither more nor less than "The concept of a being determined by the sensible qualities of that ball." Every perception, therefore, of a real being includes the intuition of its ideal being; and every ideal being presupposes the intuition of *indeterminate* and *universal ideal being*. Hence perception cannot be explained, except on the supposition that the soul first of all intuites *ideal being* pure and simple.

1308. Hence we can see that the object of perception, although a limited real, is, nevertheless, a being with everything that is essential thereto, as is required by the principle of cognition. If the limited real were separated from the ideal, it would no longer have all the conditions and qualities of a being, since, taken by itself alone, it cannot exist, it does not contain the ground of its existence: nay, by separating it from the ideal, we separate it from its essence. But when the real is united to the ideal, then it has received its essence, and is a complete being; consequently it can be perceived.

1309. Nevertheless there still remains to explain how perception comes to be thus limited. Why is not the whole of reality perceived at once? For what reason is it that our understanding, in perception, apprehends such or such portion of the reality of being and excludes every other?—I reply, that the portion of the real that is perceived is not chosen arbitrarily by the understanding, but is furnished to it by feeling. The individual feelings are divided in such a way that what is in the one is not in the other, and they are mutually incommunicable. The rational principle, therefore, in perception, remains limited by feeling. Here I can only state this as an undeniable fact; to inquire into the reason of it belongs to *Theosophy*.

1310. But it may be objected: If real being also is in its own self unlimited, when we perceive it as limited it will always lack something essential, or necessary for constitu-

ting real being; again, if limited real being has not in itself the ground of its subsistence, how shall we be able to conceive it as subsistent?—I answer: all that limited real being lacks is already virtually and indistinctly supposed and admitted in ideal being which we conjoin with it, and in which its essence is found; whatever reality is wanting to it in order that it may be complete in the thought we form of it, is not excluded, but only left behind, in a manner, I would almost say, similar to that which we see adopted by mathematicians, who, in writing an indefinite series, when they have put down a few of the terms, close up with an *etcetera*, which does not indeed express the part that is wanting, but indicates and supposes it. So likewise with our perception of a limited real being. Those conditions which are indispensable to its subsistence, those relations, essential or, at least, necessary, which it has with other limited beings, or with the unlimited, are not denied by us; they are simply left undefined, to become afterwards, as I have said, matter for ontological and theosophic reflection.

1311. By means of this observation we can refute that which I would call the *panitheistic* system, or the error of those philosophers who maintain that man in his first intellection must necessarily perceive all that he afterwards discovers by reflection. These thinkers do not properly distinguish between ideal being and real being, but confound them together, and would have us believe that the WHOLE OF THE REAL also comes within the first, natural intellection, consequently within every perception; whereas the truth is that all that comes within it is the *whole of the ideal*, with which reflection afterwards compares the limited and partial real, and finds what the latter is deficient in.* Let us now, therefore, explain the law of reflection.

* *Philosophical System*, nos. 75-81.

ARTICLE V.

Law of Reflection.

1312. Reflection is that faculty which turns upon perception or upon the objects thereof, and either abstracts or integrates.

SECTION I.

Abstracting Reflection.

1313. In regard to the abstracting reflection we must distinguish three accidents:

1.° There is a fictitious abstraction, which, speaking properly, is only an imperfect perception and has its foundation in the imperfection of the sense. It was this that misled the Aristotelians into attributing the universal to the sense as its accident.

2.° There is an abstraction which merely divides the ideal from the real part of the object of perception. This is called *universalisation*, and sometimes takes place naturally without any positive act on our part; that is, simply because the act of affirmation ceases in us, and the memory of it is lost.*

3.° Finally, there is an abstraction which is performed on the idea of the thing, and, but only indirectly, on the real thing, that is, in so far as it corresponds to the idea (realised form). By this abstraction the attention is limited to a part of the being conceived and perceived, without, however, blotting the others out of the mind, or doing anything more than not attending to them.

1314. Let us speak of the first of these accidents. The Aristotelians had observed that the notions of children and of illiterate persons are of a very general kind. They had likewise observed that an object presented to the organ of sense from a long way off, hides some of its distinctive

* *New Essay*, &c., vol. ii, nos. 490-494, 519.

features. For example, a man standing motionless in the far distance is not distinguishable from a pillar, because the senses do not apprehend the minor points that differentiate the man. From this they concluded that the sense presented first the *common* qualities of things, and then the *proper* ones, and that the intellect, following the sense, first conceived the universal and then the particular. This was a sensistic illusion, but it was, at least, a much more subtle illusion than so many others into which the moderns have fallen, an illusion which shows the character of the Aristotelian mind. It seems to me worth while to explain this illusion in the words of an Italian philosopher, a professor in the University of Padua in the sixteenth century. Professor Zimara, discussing the question, "What is the *primo cognitum?*" says: "If we wish to see what is the *primo cognitum* in confused knowledge, we must have recourse to the sense. I say so because the principal foundation upon which Averröes bases his philosophy* is, it seems to me, that the reason why the things known to us which pave the way to scientific knowledge are more confused—and why universals are more known than the species of which they are composed, and why the names of the species are more known than their parts which define them to the intellect—is, that the singular, which is a kind of whole, is known by the sense before its parts. Keeping, then, this fundamental principle in view, we shall see that there arises from it this truth, that the accidents which are more universal, both as to time and place, are more known to the sense than the accidents which are less universal. And with regard to place, as Themistius says† of an animal approaching us from a distance, we see the whole body sooner than we do the head, or the foot, or any other part. In the same way, it manifests itself as an animal sooner than as a man. Hence, in these things, the universal and the common are more manifest to us than the special and the particular. The same thing happens in regard to time; for, as the

* Prolog. in *Physica*, n. 4 & S. † In *Physica*, I, text, comm. 4.

philosopher says in the text, children call all men father, and all women mother." *

The sensistic illusion referred to in this passage is due to this, that the sensists never speak of things purely and simply felt, but always of things known as well as felt; and so in what falls under the sense they find both the common and the proper, and do not hesitate to say that sensible beings have accidents more or less universal and common. If, however, we wish to avoid error, we must take the felt and strip it of all that has been added to it by the acts of knowing and perceiving. We shall then find that there no longer remains anything universal or common, since these words express solely the relation which the felt has with ideas. The particular will be all that remains to us. Hence, for the sense, the whole is as much a particular as the part, an animal as much so as a man; whether the object, being placed afar off, is seen only as a mass, and without distinction of parts, or, being close at hand, is seen with its parts clearly distinguished, the eye never has but a particular sensation. The sensation will, indeed, be different in the two cases, yet it will always be a sensation and nothing more. It is the *Reason* that confronts the two felts after it has apprehended them, brought them within its cognisance, and seen them contained and measured in the idea. In these felts, now become its objects, the reason can certainly find the part which is common and that which is proper, and see that the common corresponds to the first sensation, and to the second the proper as well. Now that this is the way in which the thing takes place, may be shown by several arguments besides the principal one, which consists in observing and contemplating the thing in itself. We shall here give a few in addition to those which we have adduced elsewhere.†

Argument I. In a near object the sense does not perceive first the whole and then the parts. It perceives the whole

* M. A. Zimaræ, *Quæstio de primo cognito in Gymnasio Patavino publice examinata.*

† *Restoration*, &c., Bk. II, chap. xxxi, xxxiii.

and its parts simultaneously; for in the vision and image, for example, of a man, all the parts of the human form are contained. And yet the rational principle directs its attention to the whole before directing it to the parts, and requires special acts of attention distinctly to perceive the parts of which the whole is composed. It is, therefore, a property of the rational attention first to embrace the whole, and then the parts. Thus children, who call all men father, and all women mother, perceive perfectly well, through the sense, the distinct images of the men and women who come before them; they do so even better than grown-up persons, on account of the superior delicacy of their senses; nevertheless, their rational attention at first seizes only what is common to all men and women, and overlooks the remainder, although they have with their senses perceived it equally well. In this way it happens that they seem not to have seen it, whereas the fact merely is that they have not considered it with their minds.

Argument II. The child fixes its attention upon the most common sensible qualities, though even apart from the others, by the aid of words, which are the instrument of reason and not of sense. Without this instrument of thought, which enables it to distinguish the common element separately from the rest, it never could make such an abstraction. That the thing is really so may be seen from the fact noticed by the Aristotelians themselves, that whenever in sensible things there happen to be any common and universal characteristics not designated by a special name, the child gives no heed to them, and these unnamed universals are not known to it any more or any sooner than the particulars presented by those things. From this excellent observation, however, which is entirely in our favour, those philosophers did not derive the light which it could have given them. "According to the philosopher" * (says the Paduan professor above cited), "there are certain intermediate genera that have no name. There is, for example, an unnamed genus proximate to the horse and the

* *Metaph.*, vii.

ass. Now it is unquestionable, that the accidents which follow from the specific nature of these animals are better known than the accidents which follow from such unnamed genus." * The reason of this, say the Aristotelians, is that these genera make less impression on the senses; but they give no proof of their assertion, which, indeed, in many cases, is incorrect; whereas it is plain that these genera have remained unnamed because they were not needed for the requirements of human life, and so, having no words to indicate them, they are with difficulty seized by the mind.

Argument III. It is not true that the child performs that abstraction which the Aristotelians and all the Sensists suppose. Abstraction does not come till the child, having passed through its first intellectual operations, begins to reflect. To abstract is to separate the common, which is called *abstract*, from the proper. So far is the child from separating and abstracting by its first intellectual act, that it unites and synthesises, that is, unites the most universal of all universals, the idea of being, to the concrete which falls under its senses. In fact, such words as fatherhood, motherhood, mankind, which express so many *abstracts*, are for a very long time unintelligible to the child. Again, the words *father* and *mother* do not signify to it the common or abstract, but primarily the real individuals it has perceived, and heard called by these names. It would be an error to think that these terms mean to the child what they mean to us adults. Now in order to perceive these individuals, the child must unite to them the universal which it sees by nature; hence the objects signified by these words, although particular, are associated with the universal, in which its mind sees them. When afterwards other men or women fall under the senses of the child, its mind does not stop to note the differences which exist in its sensation; but either takes these men or women for the same that it has perceived before, and, therefore, gives them the same names as being the easiest for it to repeat;

* *Quæstio de Primo Cognito*, &c.

or it gives them those names, because it has attached to them the *thought* of certain more apparent qualities which have arrested its attention in the first men and women known to it. Let us suppose, for example, that what arrested its attention in the first men it saw were their beards, and in the first women their caps; when it again sees a man, it calls him father, meaning what we would express as "the being that wears the beard," and when it sees a woman, it calls her mother, meaning what we would express as "the being that has the cap:" and the same holds good, if we suppose that what rivets to it the child's attention, is, instead of a special mark like the one now stated, the general and total conformation of the body of man or woman. In this supposition, when it says *father*, it will mean "the being which has that total, male configuration," omitting the minor differences; and when it says *mother*, it will mean "the being which has that total, female configuration," making similar omissions. It does not yet know the true meaning of *father* and *mother*. Here there is only an apparent abstraction; but there is synthesis, because, 1.°, there is the union of ideal being with that sensible configuration, or with that sensible mark which happens to be singularly attractive; and, 2.°, there is the determination of an individual, a being, by means of that configuration or that mark which serves to distinguish it from others. But it will be said: Is not this sensible configuration or mark common? No, we reply, to the child, at first, it is not common; it is only a felt particular, which it takes as a sign and connotation of the being, and which, therefore, does not form the universal, but only restricts it to the attention and determines it. Now by the same mark many individuals are successively distinguished through particular perceptive acts; but it is only later, and through reflection, that the mind, prompted thereto by some need, notices also the more special differences, and this leads it to discover that the *mark* which at first served as a means to restrict and particularise the universal and to name individuals, is itself, when considered in relation to

those differences, *common* and universal. Moreover, these differences, when once perceived by the mind, serve it for the purpose of restricting and particularising anew all the beings possessed of the said *mark*, which is thus recognised as common to many individuals.

We must, therefore, designate as false or purely apparent that primitive abstraction which Sensists attribute to the sense, as if the sense perceived the common, and handed it over, cut and dry, to the reason.

1315. Let us now come to the second accident of abstraction, which is *universalisation*.

That kind of abstraction which is properly called *universalisation*, does nothing more than decompose the intellective perception by putting *ideal being* on the one side, and the felt or *real* on the other.

1316. Here we are met by this difficulty: "If the real is considered in its fulness, *i.e.*, as the infinite real, it is, in itself, altogether indivisible from the ideal, because the two are but one and the same being. If on the other hand we speak of the finite and contingent real, the *real* divided from the ideal is not a complete being, and, therefore, is not thinkable. How then can abstraction divide them?"

We reply that, since the infinite real is not given to man's perception, when he abstracts the ideal, and by means of a judgment separates it from the infinite real, he thinks he does that which he does not, he thinks he is separating what he does not separate; because in this case the object of his abstracting reflection is not the true infinite real itself, but only a negative and analogic concept which in the human mind takes the place of the infinite real. On the contrary, the blessed in heaven who see the infinite real "face to face" would never think of separating, by an abstracting judgment, the ideal from the real, just as we on earth would never attempt an absurdity if we saw that it was an absurdity.

This directly refutes the doctrine of the *pseudo-mystics*, who pretend that the object of man's natural intuition is God Himself, the infinite reality subsistent, and that, sub-

sequently, by means of abstraction, man from that infinite reality obtains ideal being. This system, besides being in contradiction with the general sense of mankind, involves many absurdities and many consequences subversive of Christianity. But not to go beyond the direct refutation of the pseudo-mystic sect, we must, in the first place, consider the fact that man, whether through abstraction, or in some other way, does really apprehend the ideal without the real. This fact is not denied even by our adversaries. Now, if man actually saw the absolute and infinite real, that is God, he would necessarily see two things at once: 1.° That the ideal is contained in the real; and 2.° That to consider it, by means of a judgment, as separate from the real, is an absurdity. But it is plain that man, as now constituted, sees no such absurdity, and hence thinks of the ideal without thinking of the real, and finds nothing wrong in so doing. This proves that he does not by nature apprehend the absolute real, as the pseudo-mystics assert. It is true that the ideal is conceivable by itself, because it includes the whole of being, though only under one form; but the reason why the ideal is intuited is different from the reason why it is thought and judged as alone and detached from the real without any absurdity being found in this. The reason why the ideal is conceived, is that it has everything necessary in order to be conceivable; the reason why it can be thought and judged alone, without manifesting the absurdity there is in admitting it as existent in this solitary state is, that man does not apprehend the infinite real, nor, consequently, its necessary *nexus* of identity with the ideal, and so the absurdity remains concealed.

1317. As to the finite real, I mean to the *universalisation* performed on any finite object of perception, we must observe that when that object comes to be divided into its two elements, the ideal and the finite real, the first alone is conceivable, because it is being, whereas the second remains unconceived, a mere felt. By this division the real object is undone, all that remains is the real devoid of the

condition of object; and it would be a delusion to think that the real is conceived by itself alone, apart from the idea. Indeed if we strive to conceive it by itself alone, we, by the very fact of conceiving it, mix and connect it with the idea which completes it as a being, and hence it is not true that we conceive it by its pure self.

1318. But it will be asked: How is it, then, that we speak of it? and speak of it both as united and as separate? —I reply: We speak of it as united to the idea, and we also see it as separable therefrom, that is, annihilating itself as an object of cognition, because we understand that it is not the idea, and this negative knowledge suffices to enable us to speak of it, without our being on that account obliged to conceive it as an actually separate object of cognition. We can also understand that, when separate, it is not a complete being, and this likewise is a negative knowledge, for the acquisition of which no perception and positive conception is required. This negative knowledge we obtain in both cases by contemplating the real in, and comparing it with the idea, because the separability of what we think united is thinkable, just as the annihilation of an object thought is thinkable.

1319. Lastly, we come to the third accident of abstraction—abstraction properly so called.

This accident of the abstracting reflection, which alone properly deserves to be called abstraction, takes place when we, reflecting upon any concept, separate in it several elements or relations; for example, when in the concept of a finite being we abstract the substance from the accident, or the accident from the substance, and so on. The products of this abstraction—say the accident or the substance taken separately from each other—are not beings, and, therefore, cannot be objects of thought, but are only parts of beings, or imperfect beings (entities). How then are they thought? Not with a complex thought, but with a partial one, with that mode of abstraction which is performed upon a concept. Such parts or elements are not entirely divided from the concept, but are contemplated in the concept it-

self, by restricting a special attention to each of them. But the entire concept reflected upon remains in the spirit, and its unity and simplicity are what render possible the consideration of its parts. Indeed, if the entire concept were removed from before the spirit, its parts would likewise disappear, and therefore the spirit would no longer be able to fix its attention upon any of them. Consequently, the act of this kind of abstraction cannot exist alone in the spirit. To say it once more, it is not an entire and complete thought, but only part of a thought, which must be considered in its entirety. The being is the object of the complex thought, not of a part of thought, or of a special act of attention which, not standing by itself, and not being therefore, by itself alone, a thought, is necessarily connected with another act.

1320. It is true that man, when he has directed his attention to some elementary part of the being which he sees in the idea, and has marked it by a word, often changes it for himself into a true being; but this also is an illusion, an error into which he falls, because to an element which is not a being, he arbitrarily and inadvertently adds in thought what it lacks. So did Hume, when he maintained that the universe might be made up of accidents only, and was in so doing compelled to transmute, without his will or knowledge, accidents into substances.*

This illusion is of very frequent occurrence, and causes men to turn mere abstractions into full beings, to personify them, &c.

As a consequence of this error, many persons, when applying such abstractions to real beings, fall into another error, by imagining that what is divided in the abstraction, is divided and separated in the real beings also.

1321. We have elsewhere shown that this mode of abstraction has its special laws, derived from the idea of being; whence it follows that this idea necessarily precedes all abstractions, since it directs them,† and, therefore, cannot be formed by abstraction. This is a new argument destruc-

* *New Essay*, vol. ii, no. 609. † *New Essay*, vol. iii, no. 1454.

tive of *sensism*, as well as of its kindred system—*pseudo-mysticism*. Sensists allow themselves to believe that the idea of being may be drawn by abstraction from felt reals; the pseudo-mystics, even more absurdly, pretend that it is drawn from the absolute real being, naturally intuited (so they say) by the human spirit. These latter do not reflect that the abstraction in question is performed only on ideas, and that, therefore, ideas must, in the logical order, precede it. Moreover, they do not consider that the idea of being is what guides abstraction in its operations, and that, but for this guidance, it would operate in a hap-hazard way, which is a thing contradicted by fact. In case, however, they should appeal to the second mode of abstraction, the reader will remember that we have already excluded it.

SECTION II.

Integrating Reflection.

1322. Be it remembered, then,

1.° That the understanding perceives finite realities, which are not by themselves complete beings, in ideal being, whence they have their completion;

2.° That it, nevertheless, does not *actually* apprehend their essential or necessary relations to complete real being; but, without denying them, leaves them aside as an appendix to be developed later on.

This development is precisely the work of a reflection which supervenes. Reflection turns upon the perceived real and confronts it with ideal being, which is the type of every reality, and in this way it discovers what is wanting to the real known by perception; for example, it discovers that it is contingent, that it has a relation to the necessary, that it is limited, and that it could not exist unless there were an unlimited, &c., &c.*

1323. Just, then, as the *abstracting reflection* confronts the ideas of the various beings with each other, in order to

* *Philosophical System*, nos. 82-104.

ascertain which among them is the most common, and applies the results of this comparison to the beings themselves; so the *integrating reflection* confronts the ideas of these beings with the idea of universal being, and finds out their ontological relations, that is, the relations which finite beings have with the essence of being itself.

1324. In the system of the pseudo-mystics, this integrating operation of reflection is abolished. They contend that reflection never discovers anything new, because the fulness of real being is presented to man in his natural intuition, and so the only reflection which they can, on their principle, acknowledge, is the abstracting one. But this goes against the general sense of mankind no less than against the individual consciousness; for everybody knows quite well that by reflection *new* truths are discovered, and that it is thus that the sciences grow. In order, however, that these discoveries may be made, it is not necessary that the truths in question should be already contained in the object of man's original intuition: it suffices that this object consists in ideal being. The reason is, that as ideal being contains, in its own way, the whole of being, it can serve as a universal rule for judging of the real, for knowing its order and relations, and for discovering what it wants in order to its completion; and these are exactly the judgments from which spring our acquired cognitions and the sciences generally.

1325. This arbitrary and extravagant system, which, I believe, will always be rejected by the good sense of my countrymen, rests on two suppositions, both equally erroneous: 1.° That being under its ideal form alone cannot be the object of the mind; which is evidently opposed to fact, since the mind that thinks of a *possible* being is under no necessity whatever of thinking of its reality also; 2.° That unless the mind apprehended the absolute real, reflection could never find the scientific truths relating to determinate and real beings; which is likewise false, because, as we have proved, in ideal being the mind has already the supreme rule for all judgments about felt reals,

inasmuch as the reals are contained in it *virtually* (and therefore in the ideal mode). These thinkers, moreover, do not understand that the real lies in feeling, and that man does not intellectually perceive it except by referring it to the idea. Then, again, they parade in support of their view certain theological reasonings which show clearly that they are as short-sighted in theology as in philosophy.*

* The arguments by which a recent Italian writer sought to impugn our theory were published together with our replies in the *Imparziale* of Faenza, 15th July, 1845. Both, arguments and replies, were reduced to syllogisms, and those who feel interested in this matter might perhaps read them with advantage to themselves.

CHAPTER III.

CONTINUATION.—DERIVATION OF THE SPECIAL ONTOLOGICAL LAWS IMPOSED ON HUMAN THOUGHT.

1326. Having thus explained the universal and supreme law of human thought, which says: "Being is the essential term of thought," and having applied it to the different modes of intellection, we must now derive from it the special laws. This can be easily done by examining what are the special properties of being; for each of these properties impresses a special character upon human cognition, and thus aids us in no small degree to understand its inner nature, so far as is requisite for our purpose.

1327. Now the chief properties of being (and we restrict ourselves to these only) are, that it is, 1,° object; 2,° possible; 3,° primal act; 4,° one; 5,° enduring; 6,° either finite or infinite. From each of these properties there springs a law determining the nature of the cogitative act. Let us begin by considering the first, which is thus enunciated: "The term of thought consists in an object."

CHAPTER IV.

CONTINUATION.—SPECIAL LAWS.—FIRST LAW: OBJECTIVITY OF THOUGHT.

1328. It is generally supposed that all the powers of the soul have an *object*. The truth, however, is, that they all have a *term*, while to have an object belongs to the understanding alone.

But man understands everything, and speaks only of that which he understands. Hence he changes the terms of his powers into so many objects by merely thinking, or, which is the same thing, intellectually perceiving them. The terms, therefore, of the non-intellective powers are objects, not in themselves, but only in so far as they come into relation with thought. Let us see what *object* means.

1329. The term of a power is object, when its nature is such that it receives no modification, either active or passive, from the power whose term it is. This term is indeed contained in the act which constitutes the power, but it is contained in such a manner that the power, although itself enriched by and deriving benefit from it, does not, as I have said, modify it in any way whatever.*

* The fact of the Ancients, not having sufficiently grasped the distinction between simple *receptivity* and *passivity*, prevented them from seeing the way in which ideal being is united to the soul. Hence it appears that even Plato never fully understood the nature of the relation, purely objective, that exists between our soul and being; for, in the dialogue entitled *The Sophist*, he introduces the stranger from Elea, who represented the Eleatic philosophy, as speaking thus: "Of course, if to know is to *act*, it must follow of necessity that what is known *suffers*; and hence an essence (οὐσία) must, when it is known, suffer by the cognition, and it must suffer exactly in so far as it is known, and in so far as it suffers it must move; which cannot be said of what is stable." — "True," replies Theætetus. And on this principle Plato undertakes to refute the School of Elea, which admitted only immovable being. We have shown elsewhere that the mind neither acts upon its objects, nor modifies them. (See *Restoration*, &c., Bk. III, chap. xlvii.)

Moreover, the power, in order to have an object, must be such as to possess the term in question in so far as this *is* in itself, and not in so far as it exercises an *action* in it.

1330. The object, therefore, has three conditions: 1.° It is unmodifiable and yet united in a way of its own to the power; 2.° This union or communication is such as to cause the power to apprehend, not the *action* of the object, but the object itself, and to make use of it; 3.° The power that apprehends the object does not at the same time apprehend its own self also, but the object alone, which, therefore, always remains separate from the power by virtue of the very act of union and apprehension. Indeed, this act places the object in opposition to the power; whence its name of *object (objectum)*.

1331. These three most sublime conditions are not to be found in any of the terms of the human powers, excepting only the term proper to the understanding, which is being. The terms of all the other powers, 1.° are passive to them, and undergo modifications; 2.° they are also active, and produce modifications in the power, so that what the power receives is, not the being itself, but only the action of the being; 3.° sometimes the modifications of the power, for example, the sensations, which are terms of feeling, are merely modifications of the fundamental sense; 4.° these modifications unite with the power so as to be confounded with it, to be, as it were, a continuation or actuation, &c., of it; hence they do not, in the act of union, remain separate from, or opposed to it. Thus the power in apprehending its term, apprehends at the same time itself as modified, and so it does not leave itself to attend with its whole energy to something different from itself.

1332. Now, if we consider carefully, we shall see that objectivity is a condition so essential to a being, that, in so far as the being is not object, it is not a being, but will at most be a rudiment of the being, conceived by abstraction, and incapable of existing by itself alone. In fact, let me ask what does the *concept* of a being contain? The concept

of a *being* does not, certainly, contain any relation between one thing and another, but excludes such relation as a superfluity. It means the thing *in itself* not *the thing as acting in another*. But a thing is *in itself* only on condition that it be in a mind. Thus, if we speak of a body not conceived by any mind, that body has not the condition of being *in itself* something, because in a mere body there is no *self*. The same must be said of a merely sensitive being; for this also has no *self*. Being in *itself*, therefore, is being conceived by an intellect *absolutely* and without relation to anything else. And when it seems to us that *things*, although not conceived by us, have this absolute existence, it is only a kind of transcendental illusion. We suppose them not to be conceived in the very act in which we conceive them, and speak of them; hence, we, inadvertently, speak of things conceived in themselves. Undoubtedly, these exist *in se*, and no further act, done with advertence, is required from us in order that they be conceived; because the condition of their being in a mind is sufficiently fulfilled by their presenting themselves to our thought [in a direct and therefore unconscious manner. TR.]. But it will never be true to say that beings which we neither conceive ourselves, nor imagine to be conceived by any other mind, in short, beings altogether unknown by any mind, are complete beings, are something *in se*. Objectivity, then, is a property or relation ESSENTIAL to *being*.

1333. It follows, that when we call objectivity an essential relation of being, we mean the same as when we say that being is essentially knowable, or, in other words, that *intelligibility* is a necessary property of being; so that those beings which are not known through themselves, but stand in need of a *means* of knowing in order to be known, are not in the full sense of the word, beings, but require, in order to be such, to be completed and perfected by union with essential, self-intelligible being, a union which takes place, so to speak, in the bridal-chamber of the mind. In fact, *objectivity* occurs in beings only in so far as they are present to the mind: hence, *objectivity* and *intelligibility*

give an identical concept, express the same thing under two aspects. When we say *object*, we mean *being* as *understood* in itself, and when we say *intelligibility*, we mean the property which being has of being understood—separating this property by abstraction.

1334. Aristotle, in several passages of his writings, tells us that *being* considered *per se* is the first thing understood, and that without it, other things could not be understood. We shall refer only to the fourth book of the *Metaphysics*, in which he teaches that "Whatever is the relation of a thing to being, such is its relation to truth;" that "the most certain and most known of all principles, that about which there can be no mistake, is the principle of contradiction, which affirms that it is impossible for being not to be, and which, as Alexander de Hales observes,* implies that the mind knows first what being is; that the truth of the principle of contradiction is not hypothetical, but necessary," and "he that sets about learning a science must know this principle beforehand and not have to look for it while he is studying his lesson," and, finally, that it is "the first truth, without which nothing can be known."

1335. From such statements as these there arose a very subtle controversy between the Aristotelians. While unanimous in holding that being was the first intelligible, they differed greatly on the question as to whether this intelligibility belonged to being as being, or to being only in so far as it was in act, which seemed to them a particular kind of being. The distinguished Italian philosopher whom we have quoted above, Marc 'Antonio Zimara (a name which, but for an ancient disgrace and misfortune of Italy, would be more known than it is), thus sets forth this opinion: "Since the intellect, so far as concerns us at present, is divided into two, the active and the possible, the former having for its function to become all things, the latter to do all things;† and since the possible intellect, called also the *intellect of the soul*,‡ has no nature except that of being

* See *Principles of Moral Science*, chap. i, art. iii.
† Aristotle, *De Anima*, iii. ‡ *Ibid.*

in potentiality, it follows that, as a potential being is drawn into act only by some being in act,* so what is understood by our intellect is understood in so far as it is in act, and such is exactly the opinion of Aristotle, as we may gather from the ninth book of the *Metaphysics*. Know, therefore, that *intelligibility*, according to Aristotle and Averroës, is a passion which originally and essentially belongs to a being in act, in so far as it is a being in act, and not a passion belonging primarily to a being as being. This I have elsewhere shown in the following manner: A passion which originally belongs to a thing, belongs to it by reason of that thing itself, so that as soon as the thing is posited, the passion also is posited, and when the thing is removed, the passion also is removed.† But this is precisely what happens to actuality considered with respect to intelligibility, because when the actuality is posited, intelligibility is likewise posited, because there cannot be a being in act which is not intelligible. In the same way, if we remove actuality from any thing, although there remain some other antecedent quality, that thing is no longer intelligible, as, for instance, is the case with first matter [πρώτη ὕλη] considered in and by itself, for, though, when so taken, it is a being, nevertheless it is not intelligible, as Aristotle teaches in the seventh book of the *Metaphysics*, where we are told that matter by itself is unknown, and yet matter is a being." ‡

1336. There is an error in these last words, which affirm that matter considered in and by itself is a *being*. Neither Aristotle, nor, so far as I know, any of the Ancients knew the doctrine about *imperfect being*,‖ which belongs in great part to the ontological law of *synthesism*, a law according to which finite beings support and uphold each other, so that,

* *Metaphys.*, ix.

† Aristotle, *Anal. Poster.*

‡ M. A. Zimaræ, *Quæstio de Primo Cognito.*

‖ Nevertheless some of them had a glimpse of it, as we see from the Aristotelian principle, that *forms* cannot be placed in any genus or species, but only *compounds* can be so placed. *Formæ non collocantur in genere vel in specie, sed composita* (St. Thomas, *Sum. Theol.*, Pt. I, q. lxxvi, art. iii, ad 2m). And why this, except because the forms of compounds were understood not to be complete beings?

when separated and divided by abstraction, they are no longer, properly speaking, beings; and that remnant of beingness which becomes the object of abstraction can, at most, be called an *imperfect being*. Such a being may be said to be on the way to be a being, inasmuch as it will be completed and rendered really possible when the other being on which it is supported is added to it. Thus matter is a being when considered as the term of the sentient principle; but when separated from this it is only a rudiment of being which, in reality, is nothing, because it cannot, in this state, exist; and even in the mind it is an *imperfect being*, since, although the mind gives it such complement as is necessary to make it thinkable, abstraction follows, stripping it of that garment which does not belong to it, in order to consider matter pure and alone, which it is not in the complex thought. Hence, when we say *being*, we already mean *act;* for there is no being that is a mere potentiality; potentiality, as we have already seen, being rather a negative thing, and therefore a non-being rather than a being.

CHAPTER V.

CONTINUATION.—LAW OF THE SYNTHESISM OF THOUGHT.

1337. Hence from the law of objectivity there flows the law of *synthesism* (nos. 34-44). In fact, if the object unites itself to the subject in such a way that, instead of the two being confounded, the object is, by the very act of union, divided from the subject and posited as that which is *in se*, rousing in the subject an act which does not terminate in it but in the object, we must needs conclude that they are united in a manner so correlative, that the union is essential to both,* constitutes them both, and yet in ways so different that the two are not only separate from, but even opposed to, each other.

1338. The ancients, not knowing this law,† fell into inextricable speculations and most grave errors. This want of knowledge gave additional force to the ἓν τὸ ὂν καὶ πᾶν of Parmenides, as we may see from a passage in the dialogue which Plato named after that great Italian thinker. In this dialogue we find Socrates urging several objections against the central doctrine of Parmenides, "That all things are one only being." Having granted that there is but one species to many individuals, he nevertheless main-

* The object is necessarily in a mind —not necessarily in the human, but in the Eternal and Divine Mind.

† Aristotle observed that some accidental forms are ordered, the one with reference to the other, and, hence, he distinguished two ways of *predicating per se* one thing of another; the first, when what is predicated is comprised in the essence of the thing of which it is predicated, as when we say: "The intellective soul is incorruptible;" the other when, though not comprised in the said essence, it is necessarily bound up with it, as when we say: "The surface is coloured." The surface does not consist in being coloured, but it is inseparably bound up with the colour, or, as the Schoolmen said: "*Superficies præambula est ad colorem.*"—Now, when Aristotle observed all this, he observed a special case of the law of synthesism. (See St. Thomas, S. i, lxxvii, a. iii, *in corp.*)

tained that these species were distinct from the individuals and from each other, and therefore were beings in themselves. Parmenides undertakes to show him the absurdities that would follow from this supposition (Ἐάν τις ὡς εἴδη ὄντα καθ' ἑαυτὰ θιορίζηται), and says that the most awkward consequence of all would be that one would find it extremely difficult to prove that species can be known, and individuals be made known by means of them (Ἀλλ' ἀπίθανος ἂν εἴη ὁ ἄγνωσα αὐτὰ ἀναγκάζων εἶναι). In order to prove this, Socrates is made to concede that every essence which exists in itself (πᾶσα καθ' αὑτὴν οὐσίαν) must be elsewhere than in us (ἐν ἡμῖν); and from this concession Parmenides concludes that, therefore, species are unknown to us, because, [if they do not exist in us] we have no participation in them (Οὐκ ἄρα ὑπό γε ἡμῶν γιγνώσκαται τῶν εἰδῶν οὐδὲν, ἐπειδὴ αὐτῆς ἐπισήμης οὐ μετέχομεν). Now, had Socrates known the law of synthesism, he would never have admitted that *species*, because they are something in themselves, cannot be in us. On the contrary, he would have felt bound to maintain that the intellective species (which, by the way, must not be confounded with *image*), is *being* itself under its ideal form, and that this being, while so much in itself that it cannot be otherwise than in itself, nor receive anything from us, can, at the same time, be intuited by us as it is, and not otherwise, so that we are participants of it, and in this sense it is in us. The argument of Parmenides proves that the species, if we are to intuite it and use it for knowing other things, must be united to us; but it does not prove the impossibility of its being intuited by us, although remaining a being of a nature and condition different from our own. Such impossibility would undoubtedly exist, if it were true that what is in us must be a part or modification of ourselves; but this is far from being the case. It is evident, therefore, that the error of Parmenides arose from the same arbitrary principle from which the moderns have derived their *subjectivism;* but the great thinker of Elea, with his keen logic, went much beyond them, and from his principles

drew the conclusion that all things must be one only being. That this argumentation, which Plato puts into the mouth of Parmenides, really belongs to this philosopher, is seen by the following verses, which form part of such of his writings as are still extant, and in which, precisely with the object of giving an adequate explanation of the fact of cognition, he says that knowing and being are the same thing (τὸ γὰρ αὐτὸ νοεῖν ἐστί τε καὶ εἶναι, v. 40), and again,

> Τωὐτὸν δ'ἐστὶ νοεῖν τε καὶ οὕνεκέν ἐστι νόημα
> οὐ γὰρ ἄνευ τοῦ ἐόντος, ἐν ᾧ πεφατισμένον ἐστὶν
> εὑρήσεις τὸ νοεῖν οὐδὲν γὰρ ἢ ἔστιν ἢ ἔσται
> ἄλλο παρὲκ τοῦ ἐόντος (v. 94-97).

These passages serve to illustrate the one we have referred to from the *Parmenides* of Plato.

1339. Besides this, Parmenides tries to prove to Socrates, by another argument, that, if we give to species an existence in themselves and distinguish them from each other, things cannot be known by means of them. He brings Socrates to admit that what exists *in se* cannot be representative of things, because existence *in se* is not relative to anything else, but is an existence shut up within itself. Hence he concludes that not even God would know human things, or have power to govern them, and that even the art of arguing disputed points would be done away with, if things had to be known by means of such species as have each an essence proper to itself, and distinct from the thing known through it. Some, continues Parmenides, seeing these consequences, and regarding ideas as incapable of explaining cognition, waver in their mind and doubt whether ideas exist at all. This is exactly what has happened in modern times to the Scottish School, which denied the existence of ideas. And we ourselves have shown, perhaps even more effectively than was done by that School, the uselessness of ideas on the supposition that they have no other function than to be representative, and that everything is known by way of representation.*

* *New Essay*, vol. i, nos. 104-108.

But this supposition is erroneous, for the simple reason that in the idea we see not the essence of the idea, but the essence of the being, and the being is identical both under the ideal and the real form. Hence, according to us, the idea is simply *being intuited by the mind** in its own essence, which is eternal. But this essence in one case contains the realisation of being, and then it is the infinite being, God, whom we do not see; in other cases it does not contain that realisation, and then it is *ideal being*, to which we refer the realisation apprehended by us through feeling. Hence, the known real thing is only *realised ideal being*, so that in this case the object of knowledge results from the two elements described above, the ideal and the real, the latter being a complement of the former. The ideal, therefore, is representative, not as one real thing, for instance, a statue, represents another real thing, say a man, but as the essence of a thing represents the realised thing. This realised thing is not disjoined from its essence; if it were, it would not be a complete being. Essence, therefore, is the act whereby being exists in the ideal world, and realisation is only another act of the same being, an act by which this being exists in feeling, that is, feels or causes to feel, and which is added to it, as its complement, in the perceiving spirit. And here we must always bear in mind that existence in the [intelligent] spirit does not cancel existence *in se*, but, on the contrary, constitutes it.

* It has been objected that we use the word *idea* in different significations. But those who think so have not considered that we define idea as "being intuited by the mind." Now, according to this definition, we distinguish in the idea the act of the mind, which is called *intuition*, from the object of this act, which is *being* (*esse*, *ens*, *essence*) [*Sein*, *Seiendes und Wesen*], as one chooses to name it according to the different relations in which it is looked at (*New Essay*, &c., vol. ii, 646, &c.). When, therefore, we consider the essence in itself, we call it *essence*; when we consider it as object of the intellect, *intuited essence*, we call it *idea*. Since, however, the idea has many relations, it receives different names; but this does not interfere with the definition given by us, *i.e.*, "intuited being," or, also, "being known through itself."

CHAPTER VI.

SECOND SPECIAL LAW: THE TERM OF THOUGHT IS THE POSSIBLE.

1340. *Possible*, in the logical sense, means "free from contradiction." Now, *being* does not admit of any contradiction. It is essentially in agreement with itself. From this property of being there flows the principle of contradiction, which says, that "Being and at the same time non-being, is not being."

Now, if being and at the same time non-being, is not being, neither is it thinkable, because the object of thought is being. In this sense, logical possibility constitutes the thinkableness of things.

1341. But if we wish to discover whether a being, real or ideal, can contain contradiction, where must we look?—To its essence. Now the essence of a being is seen in its idea. If, then, the possibility of a being is what renders it thinkable; and if possibility or immunity from contradiction is found in its idea, the truth above demonstrated, namely, that "nothing is thought without the idea," is corroborated by a new and irrefragable argument. This, however, does not mean that every human thought is formed by means of the idea *alone*, as some persons, judging too hastily, have charged us with maintaining. In rational perception, therefore, in which we think a real, it is not the reality alone that forms the object of our thought, but also the ideality: hence, every perception contains a real element and an ideal one. Sensism, therefore, which stops at the real, and recognises that only as the object of thought, is an erroneous system, deficient in philosophic

depth, a system which annihilates thought and renders it impossible by the very process by which it seeks to establish it.

Moreover, if possibility is thinkableness, and thinkableness lies in the idea, it follows that reals separated from the idea, are not thinkable; neither can the idea come from them, because they are in our mind only in virtue of the idea itself.

1342. Again, if the real receives all its thinkableness from the idea to which it is united in the mind, the real alone divided from the idea, is not an OBJECT of the mind. Those, therefore, who regard the ideal as nothing, and maintain that the human mind would not truly have an object if it had not a real for its natural term, show that they have made very small progress in philosophical investigations. The truth is just the contrary of this. It is only the essence of being, *i.e.*, ideal being, that is object. There is no object outside of it or without it. Real being, in order to be thought, must be OBJECTIVISED, that is, contemplated in the idea, in the essence.

1343. To be object, to be thinkable, to be intelligible through itself, are almost synonymous expressions. Hence, the INTELLIGIBLE *through itself* is *ideal being alone*, and real being is intelligible only by participation. This principle has only one exception, and even that is not, properly speaking, an exception. God, even in His reality, is intelligible through Himself, because His subsistence is included in His ideal essence itself. Hence in Him subsistence or reality can never be separated from ideality. It would, therefore, be a grave and most pernicious error to say that God is an idea, or even THE IDEA, a word which in ordinary parlance does not signify reality, whereas God is MOST REAL. And why do people use the word *idea* in this sense? Why has the word *ideal* been invented in opposition to the word *real?* Because men, not having by nature the vision of the most Real Being, have no experience of the necessary *nexus* between ideal being and complete real being, and therefore can only infer such *nexus* through

reasoning. The invention, therefore, of the word *idea*, as well as its constant use, overthrows the error of those who attribute to man, in this life, the intuition of God Himself.

1344. But whence comes the word *possible?* We have said that, in its logical sense, it means "not involving contradiction." But it may be said: God also does not involve contradiction; shall we, therefore, call God a possible being?

The fact that one feels a certain repugnance in calling God a possible being, shows that the word *possible* is associated with another concept besides that of the absence of contradiction. Neither God, nor the things created by Him, involve contradiction; but the Divine Essence is such, that, besides not involving contradiction, it is *necessarily* real. In the essence of created things, on the contrary, the necessity of subsistence is wanting, and so they may be conceived without its being necessary to include in that concept their reality. Hence with regard to the reality of contingent being we say that it is possible, meaning that "it may be realised, because its essence does not involve contradiction." This addition completes the concept of *possible*. *Logical possibility*, therefore, is the ground of *metaphysical possibility*.

1345. Hence, also, it follows, that everything may be objectivised or idealised, because all that is not necessary, and that does not involve contradiction, is conceived as possible.

There is, therefore, nothing that, in this sense, has not an idea as its counterpart. The individual may be considered as possible; so may subsistence, for this is merely considering it in relation to its idea, to the essence whose realisation it is.

1346. To consider as possible is to *universalise*. Still we do not universalise all things in the same manner. As we have seen, the word possible is taken in two significations; in the merely *logical* sense, as the essence of a thing which involves no contradiction, and in the *metaphysical* sense, as the capability which that essence has of

being realised; and the same may be said of universalisation.

In a simple essence there is sometimes no universality. Such is the case with those things which by their essence are unique. The essence of the individual, of the one, of the *Ego*, of the subsistent, &c., includes particularity and uniqueness; and therefore the individual, the one, the *Ego*, the subsistent, &c., can never be but unique. But if we consider the possibility of the subsistence of many individuals, many ones, many *Egos*, many subsistents, &c., all these things become universalised by means of *possibility;* not, however, of logical, but of metaphysical possibility.

It may be objected: "Do not all these things, when multiplied, correspond to a single essence, the essence of the individual, of the one, &c.? And, if they correspond to a single essence, is it not through this essence that they are universalised?"

We deny that each of these things corresponds to one sole essence. In truth, the essence of one individual of one *Ego*, &c., is not the essence of another individual, of another *Ego*, &c. The essence of one *Ego* has nothing that belongs to the essence of another *Ego*, since the character of the subsistent consists precisely in this that that it has nothing in common with any other subsistent. What makes the contrary seem to be the case, is, that the *nature* in which the subsistent participates is confounded with the *subsistent* itself. The nature is *common;* but the subsistent itself is *singular*.

1347. But it is rejoined: "If many *Egos* agree in being *Ego*, in having *selfness*, it follows that they have something in common."—Our answer to this is: *Selfness* is indeed a common essence, but it is not the essence of any *Ego*, &c.

Then the *Ego* has no essence.

Exactly so: the *Ego*, as such, has no ideal essence, because it is a real, a subsistent. Hence the universalisation which comes into play when many *Egos* are mentally conceived, is due to abstraction, which forms a *generic essence*, the specific one being wanting. When, therefore,

we have a universalisation based upon *metaphysical possibility*, which depends on the existence of a will acting as efficient cause, and not on an idea, which is an exemplar cause; then universalisation refers to a *generic essence*, which does not completely represent the being in question, but only a part of it, the other part being, as we have just said, produced immediately by will-efficacy. Thus the *generic idea* of the *Ego* is the idea of human nature considered in so far as the efficient cause can make it subsist in many individuals, but it does not represent the individual itself which that cause brings into real subsistence.

1348. Here there arises the question: "How can we know whether a given essence may be realised in several individuals or only in one?"—We reply that this question cannot be resolved except by considering the *particular* essence which happens to be in discussion, since it is on the *essence* of a thing that the possibility of the greater or lesser multiplicity of its individuals depends.

Thus the essence of God, as also the essence of matter, excludes multiplicity of individuals: the essence of God, because it is being itself, and being is one and perfectly simple; the essence of matter, because matter, being the extended term of feeling, has no other ideal essence than the generic, which expresses it wholly and not in part only, so that the individual is excluded from it. Again, when we say *water*, we express the whole nature of water, which therefore is simple like the real essence itself to which its concept is restricted.

1349. In the same way there might be essences which could allow only of a certain number of individuals. Although all the beings known to us through a *specific essence* admit of no limits in the number of individuals metaphysically possible; nevertheless no proof can be adduced that it would be absurd to suppose that some [specific] essence unknown to us were such as to admit of those limits, even as is the case with the essence of any order resulting from several finite things.

CHAPTER VII.

THIRD SPECIAL LAW: THE TERM OF THOUGHT IS A FIRST ACT.

1350. It will be understood that by thought we always mean an entire or complex thought. Hence the law indicated here is simply to the effect that "Thought cannot have for its term merely second acts unaccompanied by the thought of the first acts from which they proceed." It is true that by abstraction one may think the second acts separately from the first ones; but abstraction is not complex thought. Indeed abstraction is not possible unless it be preceded in the mind by that upon which it is performed; neither does it, when coming into exercise, expel the thought from which it sprang. If I, therefore, by abstraction, separate the second acts from the first, these still remain in my mind and enter into the thought taken in its entirety, although I do not direct to them the same degree of attention which I give to the abstraction. The attention restricts itself to a part of the thought, but this does not cause the thought itself to vanish from the mind.

1351. The reason why one cannot think anything without first thinking a first act is, that the term of thought is being, and being is always constituted by a first act.

1352. If we carefully look into the various beings, to see how they are internally constituted, we shall find them divided into two classes. The first class consists of beings whose essence is anterior to and distinct from their subsistence; and these are many and all of them contingent. In the second we have one being, and only one, who subsists by a first and original act. This being is God,

and He is necessary. But in the case of a being in which subsistence itself is the first act, it is plain that that being cannot be perceived unless its subsistence be perceived, nor thought as without subsistence. Hence it is that God cannot, like contingent things, be thought in a merely ideal form, or as possible. Either He must be thought as subsistent, or else it is not God that is thought. Hence were any one to say that *ideal being*, which informs our reason, is God, he would fall into a most grievous error, an error leading to Rationalism, Pseudo-mysticism, and many other monstrous absurdities.

1353. As to contingent beings, since they all have their own separate essence, which is manifested in the *idea*, and since nothing can be thought without its essence; we obtain from them a new proof of the truth which we have so often proclaimed, but which is as yet so little understood, namely, that contingent real being cannot be perceived by the understanding except through and in its idea, which cannot be furnished to us by sensation, because sensation is the very thing that is perceived and known by means of it.

Furthermore, the idea does not, by itself alone, suffice to give us [intellective] perception of the real, because, as the idea contains purely the essence of the being, and this essence remains separate from reality or subsistence, so nothing of this is understood until something besides the essence is intuited in the idea. Now subsistence is apprehended only in the way we have stated, namely, through feeling joined with rational apprehension and with affirmation.

1354. But how does the principle "that it is impossible for us to know anything without knowing the *first act* of the being which becomes the object of our cognition," apply here?—I answer: properly speaking, the *first act* does not lie in the real itself, as such, but, as we have already seen, in the *essence* of the real. Hence it comes to pass that in *perception* and in *universalization* we take as first act that which is designated by a name, and at which our attention stops; and we take as second acts

those which happen to the thing indicated by the name and taken as the subject of the definition and the object of the attention, but are outside the elements contained in the meaning of that name and definition, *i.e.*, in the object of the abstracting attention. Thus it is that we form the knowledge of real things and of their cognizable essences, determining and limiting them, as I have said, by what we come to perceive through feeling.*

1355. But, besides this, our mind finds an order in feeling itself, because, 1.°, it cannot perceive certain sensible qualities without others, *e.g.*, colour or form without extension; 2.° some of these qualities logically precede as conditions and, as such, never change; others follow as conditioned and are susceptible of changes: for example, extension, without which no colour would exist, comes first and remains unchanged, while the colour which adheres to it, and may change, comes next. When things are seen connected and dependent in this way, the first condition or quality, that which is logically anterior to the others, is taken up and considered as first act and, relatively to the others, and when already joined to the essence, is called substance. In bodies the *sensible and sensiferous* force is this first act, because without it the other corporeal qualities could not be felt. Hence even in the sphere of reality there is a kind of first act, but this is a hypothetic act, because relative to sensitivity itself, as we explained when speaking of perception. Now when the mind has conceived the essence of a being capable of coming within perception, that is, having all the conditions necessary to make it a term of the perception of which we have spoken, then this being is broken up by abstraction, and the first act, called substance, is discovered, without which the rest could not be perceived. But even this order which exists in realities, is reflected in the ideal essence, which, by this relation with the real, actuates and determines itself before our mind; and it is in this essence that such order is known.

* *New Essay*, vol. ii, nos. 1206, 1207.

1356. Consequently, for us intellectually to perceive a contingent real, it is necessary,

1.° That there should not be wanting the essence, which is seen in the idea, because the essence is the *first act* with respect to realization;

2.° That there should not be wanting the *first act* of reality itself; because without this act reality cannot fall within feeling, or acquire a name. We must bear in mind, however, that the first act of reality by which feeling is conditioned is hypothetical, that is to say, is considered by us as such; and it is also such in fact, but only in relation to the felt, not in relation to the whole of being.

CHAPTER VIII.

FOURTH SPECIAL LAW: THE TERM OF THOUGHT IS THE ONE.

1357. Another property of any being is *oneness*. If a being were not one, it would not be a being. Hence in the object of thought there must always be the *one*, because otherwise there would be no being in it. Hence a being is always an individual, and cannot be thought with a complete and complex thought without attributing an individuality to it.

1358. In fact, whence comes the idea of one, or of unity? It is given together with the idea of being, and is drawn from being by abstraction.* Without being, no idea is possible; with being, the idea of the one is instantly in our mind.

1359. Hence the Schoolmen said, that "One and being are convertible terms;" † and the ancient philosophers, especially the Pythagoreans, took the one to signify being in the abstract, without determining in it anything further; and they were wrong in this that they said of purely abstract entities many things which were applicable only to complete being. This is the true source of the errors of Pythagoreanism.

1360. The Schoolmen further said that "Each thing is one by reason of its essence" (*quælibet res est una per suam essentiam*).‡ Moreover, they proposed the question,

* *New Essay*, vol. ii, nos. 576, 578.

† St. Thomas, *Quæst. Quodlib.*, vi, 1, and Com. to Aristotle, *Metaph.*, iv, Lec. ii.

‡ St. Thomas, *Sum. Theol.*, Pt. I, q. vi, art. iii, ad 1m). Is this principle applicable also to the Divine Persons? If, with St. Thomas, we define the one as "That which is undivided in itself and divided from other things," we must reply, with the same Holy Doctor, in the negative, because the distinction

"Whether the mind could understand several things at once," and answered it in the affirmative, subject, however, to the condition that the mind thought them *per modum unius;* thus recognising the fact that the one must always enter into the object of thought.

1361. On the other hand, the earliest philosophers, from whom Plato took a good deal in forming his system, not being able to find unity in body, for the reason that they looked for it in matter—that is, in body considered apart from the sentient principle, and hence divisible *ad infinitum*, without ever giving a first extended having a unity that could not be lost by further division—denied that body was a being, or fit to be an object of knowledge. In this way they changed it into a phenomenon which the vulgar take for a being, but which the philosopher finds to be a mere phantom. In a word, they fell into Idealism, or, to speak more correctly, they posited those ontological principles which subsequently gave rise to Plato's Idealism. But we have found the unity of body in the *relation* it has with the sentient principle—a relation so *essential*, that if the felt and the sensiferous were considered apart from it, that is, were separated from the sentient principle, they would no longer be conceivable. At the same time, however, we have explained, that the necessity of this relation does not in the least disprove the reality of body, but only shows that body must, in virtue of its very nature, be united with the sentient principle, from which

between the Divine Persons cannot possibly arise from diversity of essence, inasmuch as each Person has identically the same essence and nature as the others. Hence the principle which distinguishes them is not the essence but the *relative property*. "*Unitas autem personalis est ipsa* PROPRIETAS RELATIVA, *distinguens unam personam ab alia, et non essentiam ipsius personæ*" (In *I. Sentent. Dist.* xix, q. iv, art. i, ad 2m). Nevertheless, *unity* or the *one* may be considered from two points of view; first, as what it is in itself (*ens indivisum*), and, second, as what it is with relation to other things, that is, as a principle of division (*divisum ab aliis*). If it is considered in the former light, each Person of the Most Holy Trinity is one, because its essence is one and perfectly simple; but this unity and simplicity of each Person is not the principle of its distinction from the others. This principle, as we have said, is purely the *relative property* of each. Therefore it is not universally true that what constitutes one, that is, a substantial being, is what distinguishes the one which is in the substantial being from another one which is likewise in the substantial being; because, in God, the same substance subsists in three, that is, in the three Divine Persons.

alone it receives perfect continuity, and hence the unity it requires in order to be a being.*

1362. From the fact that being is one, it follows,

1.° That, within itself, it is harmonious and accordant, excluding all contradiction or conflict. This, as we have said, is what renders it logically possible; hence the principle of contradiction simply means the unity and harmony of being with itself. The immunity of being from all internal contradiction and conflict was observed by the ancients, and Parmenides expressed it in a verse preserved to us by Clement of Alexandria: Οὐ γὰρ ἀποτμήξει τὸ ἐὸν τοῦ ἐόντος ἔχεσθαι † ("For thou wilt never sunder being from its hold of being");

2.° That it is *simple*, so that, if it were to lack anything of what constitutes being, it would *ipso facto* not be at all. Parmenides said this also, and expressed it in the 89th of his verses still extant: ἐστὶ γὰρ οὐκ ἐπιδευές μὴ ἐὸν δέ κε παντὸς εδειτο ("For if anything be wanting, all being must needs be wanting"). And it is precisely for this reason that we, by setting forth the chief properties of being, infer from them as many conditions and laws of thought. But what our ancestor Parmenides did not see was that there is something which may be called *being in course of formation*, that is, when it is detached from its *essential relations*, as we explained when speaking of matter, &c.;

3.° That being, by reason of its simplicity, is exempt from space and time, and constitutes what I call the *metaphysical world*. This also was seen by Parmenides and alluded to in the verse which we find likewise recorded by Clement of Alexandria: Λεῦσσε δ' ὅμως ἀπέοντα νόῳ παρέοντα βεβαίως ("Still regard in the mind things absent as certainly present"). ‡

* That Parmenides had in view the difficulty involved in the question regarding the *continuity* of body, we may perhaps infer from the fact that he made continuity (τὸ συνεχές) an essential attribute of being. Aristotle finds fault with him for this, and says that the continuous is the result of a continued series of parts, and may, therefore, be divided *ad infinitum* (το διαιρετὸν εἰς ἀεὶ διαρετά), whereas being, according to Parmenides, cannot have parts (*Phys.*, i, 3; *De Cœlo*, i, 1; *Categ.*, vi). But here Aristotle is mistaken, because the continuous is not divisible in reality, but merely limitable by *man's imagination*. The continuous, properly speaking, consists in uniformly immovable space, whether full or void, as we have said.

† *Strom.* v.

‡ *Strom.* v, 2.

CHAPTER IX.

FIFTH SPECIAL LAW: THE TERM OF THOUGHT IS ENDURING.

1363. We have already seen that the instant is but the beginning or the termination of that which endures (whether it be a being or the act of a being). Consequently, where there is no duration there is no instant. This is conceived only as the limit of that and, therefore, is conceived in that; in the same way as the mathematical point, being simply the termination of a line, is conceived only in and through the line.

To believe that there can be a being that exists for an instant only, is a vulgar illusion of those who have not formed the correct concept of *instant*. Since the instant has not any duration, the supposed being would be one that endures no time at all, and that which does not endure at all is not a being.

1364. This is a most important truth, and one that was observed by the Italian Schools of *Magna Græcia*, and deduced from the principle of cognition. Let us see how the deduction was made, and to what controversies it gave rise.

Parmenides distinctly expressed the principle of cognition in the verse preserved to us by Proclus * and Simplicius: † Οὔτε γὰρ ἂν γνοίης τό γε μὴ ἐὸν, οὐ γὰρ ἀνυστόν [ἐφικτόν] οὔτε φράσαις ("Non-being is not known by thee, for it cannot be known"), as well as in that other fragment, likewise preserved to us by Simplicius: ‡ οὐ γὰρ φατὸν οὐδὲ νοητόν ἐστιν ὅπως οὐκ ἔστιν ("That which is nothing can neither

* On *Timæus*. † *Physic.*, i. ‡ *Ibid.*, f. 34.

be uttered in words, nor revolved in the mind"). This principle is so evident and so plainly in agreement with the common sense of men, that it could never have been impugned except by the most corrupt sophistry. So the earliest and most celebrated of our national philosophers made the *principle of cognition* the solid basis of their philosophy.

1365. When, however, they came to the application, they encountered very serious difficulties. They saw that if *being* is the only thing thinkable, it was necessary to investigate the properties and conditions of being in order to know whether a given thing expressed in a proposition was thinkable or not, which means, whether it was or was not, whether the proposition meant something or nothing, whether what was supposed to be thought was an appearance or a truth.

Now, among the first properties of being they found there were these two, *unity* and *duration;* hence they concluded that what is *not one*, and *does not endure*, is nothing, and cannot be an object of thought.

Leaving now aside the *one*, on which we have already spoken, and confining our attention to *duration*, we find that they arrived at once at a consequence at variance with the general sense of men. To understand this, the reader must bear in mind, that the philosophical concept of motion, as set forth by us, was not yet established, and so the vulgar concept of it prevailed, and was accepted as true by the Schools without any examination. This concept supposes that motion takes place without any interruption and through *continuous* change, because the extremely brief interruptions which render it intermittent have, thus far at least, escaped all sensible observation, and therefore could never be suspected, either by the multitude, who are generally wont to judge by the appearances of the senses, or by the philosophers of that time, because they had not yet risen to an order of reflection high enough to make them see reason for such suspicion. It was only at a later period that motion was denied, on account of the

embarrassment which it caused to philosophical systems. This was something; but not sufficient to meet the requirements of the case, because it gave no explanation of the appearance of continuous motion, which appearance, nevertheless, was an undeniable fact. Hence the denial of motion seemed an ingenious extravagance rather than a truth conformable to nature; and Aristotle undertook to refute the arguments of the acute Zeno, instead of perceiving that what they disproved and, to say the truth, with a force that admitted of no valid reply, was not *motion* itself understood according to its true concept, but only the *continuity* of motion.

"If a thing is such as to be continuously changing its state, it follows that none of its states has any duration whatever; therefore, that thing has no duration; therefore, it can neither be thought, nor be a being." Such was the terrible difficulty that gave rise to those fierce and perpetual disputations among thinkers which set the whole field of philosophy in confusion; nor was peace restored except by the death of philosophy itself, through the barbarism of the times reducing the philosophical schools to silence.

The Ionic philosophers, limited to the study of material nature, and not yet risen with their reflection to metaphysical regions, knew nothing of this difficulty; hence, instead of finding any stumbling-block in the conception of continuous motion, they even supposed that life and intelligence must consist in continuous motion. Aristotle attributes this rude notion to Thales and, after him, to Diogenes, to Heraclitus and to Alcmæon, as may be seen in the following passage: "Thales, according to what is recorded of him, seems to have considered the soul to be something in motion, since he said that the magnet had a soul because it attracted the iron. Diogenes, again, and some others considered the soul to be air, because it seemed to them that there was nothing more subtle than air, and that this was why the soul knew and moved; that is to say, in so far as the soul (being air) is the principle of other things, it knows, and in so far as it is most subtle, it

moves. Heraclitus likewise holds that the soul is the principle of all things, for the reason that it is vapour, of which, according to him, all things are composed, and he supposes it to be in the highest degree incorporeal and in continual flux; and as to that which moves, it is *known* just *because it moves*. He held also that THOSE THINGS WHICH ARE, ARE IN MOTION, AND THIS IS THE VULGAR OPINION. Alcmæon's view of the soul seems to have been similar to these. He affirms that it is immortal, because it is like the immortals, for the reason that it is always in motion, which is a property characteristic of all divine beings, the moon, the sun, the stars, and the whole heaven.*

But a wide distinction must be made between the first Ionians and their successors. Heraclitus of Ephesus, for example, had already heard of the objections raised against motion by Italian metaphysicians, and seeing, on the one hand, the difficulty of admitting that what moves is a being, and, on the other, not being able to give up the Ionian opinion that everything moves, became so very obscure in his mode of expression that he received the nickname of σκοτεινός, or the Dark. He, therefore, admitted that all things were on the border-line between being and non-being, and formed and unformed themselves continually, as appears from these two sentences of his, preserved in the work of Heraclides Ponticus *On the Allegories of Homer*. The first is: "Immortals are mortal; mortals, immortal, living each other's death and dying each other's life" (Ἀθάνατοι θνητοί, θνητοὶ ἀθάνατοι, ζῶντος τὸν ἐκείνων θάνατον, τὸν δὲ ἐκείνων βίου τεθνεῶτος); † which seems to mean that men, dissolving into their principles, become Gods, and so form the life of the Gods, who are principles, and, becoming men, and acquiring human life, live the death of the Gods because they cease to be principles. The other is: "You cannot step twice into the same river. For, as you

* *De Animâ*, i. The word θεός comes from the verb θέω (*I run*), poetically θεάω; and this origin seems to indicate *star-worship* as the religion of those who first settled in Greece.

† Mullach, *Fragment*, *Heracl.* 60.

are stepping in, other and yet other waters flow on; we step in and do not step in; yea, *we are and are not*" (Ποταμοῖσι δὶς τοῖσιν αὐτοῖσιν οὐκ ἂν ἐμβαίης ἕτερα γὰρ καὶ ἕτερα ὕδατα ἐπιῤῥεῖ ἐμβαίνουσιν. ἐμβαίνομέν τε καὶ οὐκ ἐμβαίνομεν, εἰμέν τε καὶ οὐκ εἰμέν); * which alludes to the perpetual passage (ῥοή) of things, asserted by this philosopher.† Here we see plainly that the system of Hegel, whose principle consists in BECOMING, was manifestly derived from the "We are and are not" of Heraclitus the Dark. And since the saying *we are* and *are not* is a contradiction in terms, and therefore repugnant to being, it necessarily results in the destruction of being, by making naught its origin. This foolish and absurd system, if system it may be called, has in our times been not inappropriately termed NULLISM.‡

1366. Now how did the minds of philosophers arrive at all these absurdities, which, so far as thought can do it, destroy the universe? By setting out with two vulgar concepts, two prejudices unworthy of philosophers: 1.° the belief in the continuity of motion, and 2.° sensism.

In fact, it is easy to see from what passes around us that all bodies move. If then, 1.°, all bodies move and nothing stands still, 2.° if this motion is continuous and, 3.° if nothing is known except through the senses, and, as a necessary consequence of this principle, no other beings but bodies come within our perception and knowledge, it follows that all beings known to us are in a continual change, and hence that none of their states has any duration. Therefore, they ARE not, but continually BECOME. But what *becomes*, is not yet *in esse;* therefore there are no beings in the *universe*. This is Hegelian *nullism*, which has, at once, the merit of good logic in deducing consequences, and the defect of plebeian

* Mullach, *Fragm. Heracl.* 42.

† Plato, *Cratylus*.—In the *Sophist*, Plato says of Heraclitus, that he laid down τὸ διαφερόμενον ἀεὶ ξυμφέρεσθαι ("The divergent always converges"), or, as Ficinus translates, *Dissidens semper congreditur*.

‡ Sextus Empiricus speaks of a certain Xeniades of Corinth as quoted by Democritus, but whose age is unknown. This Xeniades affirmed that everything came from non-being and continually returned to non-being (hence he was one of the first authors of nullism), "ἐκ τοῦ μὴ ὄντος πᾶν τὸ γινόμενον γίνεσθαι, καὶ εἰς τὸ μὴ ὄν πᾶν τὸ φθειρόμενον φθείρεσθαι" (*Adv. Logic.*, vii, 53, 388; *Pyrrhon. Hypot.*, ii, 18).

vulgarity in accepting without examination the false principles upon which those consequences are based.

1367. Now, that all the corporal world is in motion is generally admitted by modern physicists, and to be convinced that they are right, we do not require to read Boyle's book against absolute rest. But what seems strange to me is that that great and indefatigable genius, Leibnitz, could have admitted the *continuity* of motion, without ever having the least suspicion either of the insuperable difficulties which that admission involves, or of the most evil consequences to which it led. I can only account for it in this way: his lively fancy very readily furnished him with hypotheses, which gave him such pleasure that he enthusiastically embraced them, and so often skipped some link in his chain of reasoning.*

1368. But to return to the disputes of the ancient philosophers, they were like mariners sailing between two rocks. The doctrine that things were in continuous motion was one that, driven forward by the invincible logic of Parmenides, as by a violent wind, broke on the rock of a most manifest absurdity, viz: that nothing that so moved had any true existence, because that great dialectician pressed his adversary with the principle that what does not endure at all is no being. On the other hand, to deny motion—of which no other idea was entertained than that involving continuity—and hence to deny the continuous generation and annihilation of the things that fall under the senses,

* For example, in defending against Locke the Cartesian doctrine that "the soul always thinks," Leibnitz breaks forth in these words: "I maintain that in nature no substance can be without action, and that there are not even bodies without motion" (*Nouveaux Essais*, Bk. I). That a substance cannot be without action is true, inasmuch as every substance must have at least its primitive, immanent act; but it is a mortal leap to add that there are not even bodies without motion. If such were the case, it would be a truth of experience, but not a consequence of that principle, 1.° because the motion of bodies is not an immanent and first act, with respect to which alone the principle is true; 2.° because it cannot be said that motion is an action of bodies, since bodies are moved, but not movers, the principle of motion having to be sought elsewhere, as we have already seen; although motion, when once imparted, communicates itself from one body to another according to certain laws. There is, therefore, a leap in the transition which Leibnitz makes from the metaphysical principle of the activity of substances to the purely empirical necessity of the bodies moving in consequence of that principle.

was to break upon another rock, that of abandoning the common sense of men, which common sense is a most authoritative judge, unless indeed it should happen to turn into what is not common sense, in which case it would be like an unjust and cruel judge, who punishes all that refuse to bow down to his *ipse dixit*, with derision, implacable infamy and, frequently, with calumnious persecution, discarding all forms of legal procedure.

The first philosophers of Miletus, therefore, admitted continuous change, following like the vulgar, without suspicion, the appearance of the senses. Then came Parmenides, who, establishing the principle furnished him by the idea of being—that "What has no duration has no existence,"—berated those who took sensible phenomena for so many truths, and affirmed that *reason* alone, being the power which had truth for its object,* ought to be followed [κρῖναι τῷ λόγῳ].

But although Parmenides's argument was irrefragable, still, partly because he drew strange consequences from it, and partly because it went against the seeming depositions of the senses and the opinion of the multitude, it was not followed, and the denial of all truth, and scepticism and nullism were thought more eligible. In this way philosophy fell into the hands of the most arrant sophists, of whom the most celebrated was Protagoras. The truth is, after Parmenides, it was impossible for any one with understanding to admit that what was always changing was a being: and as the senses presented only things subject to continual change, so rather than admit that the senses were deceptive, it was preferred to deny the existence of all things. Such is the description which

* Ἀλλὰ σῦ τῆσδ' ἀφ' ὁδοῦ διζήσιος εἶργε νόημα,
μηδέ σ' ἔθος πολύπειρον ὁδὸν κατὰ τήνδε βιάσθω,
νωμᾶν ἄσκοπον ὄμμα καὶ ἠχήεσσαν ἀκουὴν
καὶ γλῶσσαν κρῖναι δὲ λόγῳ πολύδριν ἔλεγχον
ἐξ ἐμέθεν ῥηθέντα (Mullach, *Frag. Parm.*).

Simplicius (in *Phys.* i, f. 7) thinks that when Parmenides spoke of those who admitted the compatibility of being with non-being, he meant to hit Leucippus, because this philosopher posited two conjoint elements as the principles of things, that is, the *atoms* which he called *being*, and the *void* which he called *non-being*.

Socrates, in Plato's *Theætetus*, gives of the system of Protagoras and many others. "Nothing that is in itself one is certain, nor can one speaking properly say of it with truth: this is such a determinate thing, or this has such a determinate nature. For what you call great may also in turn appear small; what you call heavy may yet appear light, and so on. There is nothing which is either one, or belonging to a fixed kind. On the contrary, all things are made up of extension and motion, and reciprocal actions and reactions. We indeed call them existent, but this is a mistake.* FOR NOTHING EVER IS, BUT EVERYTHING IS ALWAYS IN COURSE OF BECOMING (ἔστι μὲν γὰρ οὐδέποτ' οὐδὲν αἰεὶ δὲ γίγνεται). And in this all subsequent wise men (Parmenides excepted) agreed, Protagoras, Heraclitus, Empedocles,† and the chief poets in both branches of poetry, Epicharmus in comedy and Homer in tragedy. The latter, by saying that Ocean is the father, and Tethys the mother of the gods, proclaimed that all things are born of flux and movement." This passage of Plato is remarkable, because we learn from it:

1.° That Parmenides having declared that what exists must have immobility and duration as its essential properties, denied generation and motion;‡

* It is quite clear that Parmenides extended to all beings, without exception, what was true only of the corporeal sensible; thus composing an Ontology derived, not from what belongs to every being, or from the essence of being, but from what is peculiar to sensible corporeal being, which is relative and phenomenal. Now this *sensistic Ontology* is still deeply-rooted in men's minds, and in it lies the source of all modern errors, all false systems, and all impediments to the progress of the one true philosophy.

† See Mullach, *Frag. Parmen.*

‡ It was disputed among the ancients whether Parmenides admitted two kinds of beings, namely, *being*, which is the object of the true (τῆς ἀληθείας), and *non-being*, to which the vulgar opinions (δόξαι) refer. Alexander of Aphrodisia maintained that Parmenides rejected non-being and vulgar opinions as mere fallacy; but Simplicius (*Phys.* I, 9) finds fault with him, and asserts that Parmenides admitted both. It is evident, however, 1°, that Parmenides spoke indeed of the opinions of the vulgar, which he set forth in the second part of his poem; but, 2°, that he, at the same time rejected them as fallacious, and admitted being alone, nay, went so far as to maintain that there existed but a single being, perfectly one, perfectly simple, and that this being was all things at once. This view is sustained by Aristotle in all the passages where he speaks of Parmenides, among others, *Metaph.*, i, 6; *De Generat. et Corrupt.*, i, 8; where, if he says that Parmenides admitted sensible things, he must be understood as meaning that he admitted them merely as a proof of the fallaciousness of the opinions of the vulgar, which is surely the same thing as not admitting

2.° That no one followed him in this opinion except his first few disciples; *

* It is singular that Plato makes no mention of Anaxagoras, but merely says that all the *wise men* (πάντες οἱ σοφοί)—so called, no doubt, in that attic irony, which characterizes Plato's style, in contradistinction to "philosophers" (φιλόσοφοι)—held the nullism of Protagoras. And yet Anaxagoras was the first to admit the unity and simplicity of the mind (ὁ νοῦς μόνος αὐτὸς ἐφ' ἑωυτοῦ ἐστίν, Fragm., edit. Schaubac, p. 110). The reason why he did not mention Anaxagoras was, perhaps, because this philosopher did not sufficiently develope his concept, or because he did not, properly speaking, deal with the general and ontological question propounded by Parmenides.

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them at all. I am, therefore, surprised to find so erudite a writer as Karsten appealing to Aristotle as his authority for saying that Parmenides "neither embraced the one truth, nor despised opinions altogether; he did not exclude either of these things, but assigned to each of them its own proper place" (*Ille nec unam amplexus est veritatem, nec sprevit omnino opiniones; neutram exclusit, utrique suum tribuit locum*) (*Philos. Græcor. Veterum Reliquiæ*, p. 145. Amsterdam, 1830); and the more so as Karsten himself distinctly acknowledges that, as regards Parmenides, Aristotle can on no account be credited either with having interpreted him correctly, or judged him fairly; the obvious inference of which would be that Aristotle was not a very trustworthy witness in this case. In the first book of the. *Physics*, Aristotle says that the reasoning whereby Parmenides proves the unity of being does not belong to Physics, and yet he always supposes that Parmenides, in admitting the *one being*, meant to lay down a principle for the explanation of physical things. This is manifestly untrue, as Karsten admits, because Parmenides clearly distinguished the doctrine of being, or, as he termed it, of *truth*, from the opinions which relate to natural things and which he called a false way. "*Ille* (Parmenides) *in considerando entis naturam*," writes Karsten, with perfect justice (*Ibid.*, p. 170), in opposition to Aristotle, "*non quæsivit de mundi principiis; utrumque argumentum non copulavit, sed disjunxit: in altero solam veritatem spectavit, alterum ad opinionis visa rejecit. Seriores vero, præsertim sceptici, in multis eleaticos æmulati, illorum rationes usurparunt ad physicorum placita refutanda et omnem rerum naturam labefactandam, quorum sententiam multi perperam cum veteribus illis fecerunt communem*" (*Sext. Empiric. Adv. Logic*, vii, 5, 114.—Fabricius, *ibid.* et ad Chalcid., L. I).—Aristotle, moreover, who in some places chose to take the *one* of Parmenides as the principle of natural things and found therein occasion to censure him, in other places (*e.g.*, *Metaph.*, I, v) quotes the two principles of heat and cold, admitted by Parmenides, as instances of *vulgar opinion* and not of *truth*, saying that Parmenides, "Being obliged to follow appearances, fell on the expedient of thinking, that while things *were one according to reason*, they were many according to sense" (Coactus illa quæ apparent sequi, et UNUM RATIONE *et* PLURA SECUNDUM SENSUM *putans esse*). Hence, to combat Parmenides fairly, Aristotle ought to have shown, 1.° that the *one according to reason* did not exist, and, 2.° that in order to explain the *many according to* SENSE, the proposed principles of heat and cold were not sufficient. Instead of this, he dilates in many places to prove that the *one* does not explain natural things, which is precisely what Parmenides said. Nevertheless, I think that Parmenides, although he did not say so, had in view physical things, and that in conceiving his *one*, he had regard to the *universe*, and I do so, because he is said to have been a disciple of Xenophanes. Aristotle distinguishes between Xenophanes, Parmenides, and Melissus in this way: "Parmenides seems to have touched the *one according to reason* and Melissus the *one according to matter*. Hence, the former says that the one is finite, the latter that it is infinite. Xenophanes, again, though anterior to these, had posited the one, without clearly expressing what he meant by it, or saying whether it was finite or in-

3.° That subsequent philosophers finding it impossible, on the other hand, to deny that *duration* is a property essential to being, and, on the other, being unwilling to gainsay continuous change, that is, generation and motion, because they had not the courage to rise above sensible appearances, and oppose themselves to the general sense of men, who believed in it, were obliged to deny being, that is, to deny that anything truly existed, and so they fell into nullism;

4.° That the denial that anything existed was a running counter to that very sense of the generality of men out of tenderness for which these philosophers professed to believe in continuous change. Hence, when Protagoras and his brother sophists drew the extreme consequences of their system, they were obliged to hide them from the public. Hence Plato, in Theætetus, makes it a point to inform us that Protagoras professed two different doctrines at once; for whereas in speaking with his intimate disciples he openly declared himself a sceptic and a nul-

finite" (*Metaph.*, I, i, v). These, as the reader can see, are conjectures of Aristotle's. Now the arguments of Parmenides are certainly drawn from the *concept of being*, but the attributes of *continuous*, *indivisible*, *immovable*, which he applies to it, his description of it as one being adhering to another (ἐὸν γὰρ ἐόντι πελάζει, Karsten, *Frag.* 80) and as homogeneous in its parts—

"Neque dividuum est, siquidem omne sui simile est,
Nec alia parte valentius, quod prohibeat ipsum cohaerere
Alia parte debilius: sed omne plenum est entis"—

and other similar expressions, show that he had in view the immensity and continuity of space, in regard to which Melissus had perhaps spoken more openly. Indeed there is no reason why the speculative mind of the philosopher of Elea should not have contemplated being in the pure idea, and, at the same time, have retained something of that *sensism* of which it was so difficult for men to rid themselves when they were just beginning to philosophize and had not yet meditated sufficiently on the nature of spirit—so difficult that philosophy was never completely cleared of it even by Plato, as I could show, if this note were not already too long. But there will be other opportunities of showing this. In conclusion, I shall merely point out that Aristotle may to some extent be excused for having taken the *one* of Parmenides as the principle of things, for the reason that, although Parmenides spoke of being as the object of reason, he nevertheless, almost at the same time, cast an indirect glance at the material universe. But it remains none the less true that Aristotle did not realise to himself the necessity of excluding the continuous and the continually mutable, and that he was wrong in censuring Parmenides for having said that being is continuous (συνεχές) and indivisible (ἀδιαίρετον), on the ground that the indivisible is only the mathematical point (*Phys.* I, 3). In truth, extension is really continuous and indivisible, although it owes these qualities to the sentient principle, as we have shown.

list, with others he used ambiguous language to conceal so revolting an absurdity; *

5.° Finally, that Plato was the first person who expressly attempted to find the way in which the doctrine of Parmenides concerning the necessity that a thing should endure in order to exist might be retained without contradicting the general sense of men in regard to continuous motion; and this way, according to him, was by admitting certain things that *are* (ideas) and other things that *become* (the flowing things, the things that are in continuous change). But in truth not even Plato succeeded in untying the knot of this most curious mystery that some things *become* and *are* not, because he did not come so far as to see that the *continuity of change*, so embarrassing to philosophy, was a pure assumption wholly unsupported by any argument of reason, and admitted on no other ground than that of a phenomenal illusion.† Whether, on the other

* *New Essay*, vol. iii, no. 1127, note.

† What is the precise line that separates the systems of Parmenides and Plato?—If we take for the basis of our judgment the fragments that remain to us of the works of Parmenides, we are bound to conclude that this philosopher went no further than to establish a theory of *being* in general, without applying it to the several classes and categories of beings. Although he distinctly affirms that being is truth, and that truth is found through *reason* and not through sensible appearances, yet we discover in him no indications of an acquaintance with the theory of ideas. On the contrary, if we consider what were the philosophical systems to which he opposed his own, namely, those of the Ionic school, we plainly see that his eye was turned to physical and natural things, and this purely for the end that he might expose the fallaciousness of them, and chiefly as regarded their continuous flux, and thus have the opportunity of replacing mere appearances by truth. Hence the second part of his poem, entitled τὰ πρὸς δόξαν, in which he expounds the doctrine on material nature as it appears to the senses. But although he kept physical things in view simply with the said intent, Aristotle interpreted his doctrine on being as if it meant that being was the principle of nature, whereupon (*Physic.*, I, 2; *Metaphys.* I, 5) he censures him, saying that his system is little in accordance with nature. Thus Aristotle treated Parmenides much in the same way as, according to Cardinal Bessarion, he had treated the Pythagoreans: *Aristoteles ad sensibilia traduxit quæ Pythagorici de numeris et substantiis intelligibilibus dixere* (*In Calumn* II, 4). The truth, however, is that Parmenides contented himself, as I have stated, with expounding the general theory of being, without applying it further than by showing the insufficiency of physical science. Then came Plato, who accepted the general doctrine on *being* as demonstrated by Parmenides, but added that it held good only for *ideal being*, leaving the things that are flowing, or, as he calls them, *generable things*, to be considered as non-beings, and consequently involved in darkness, and, by themselves, unintelligible because they never endure in the same state. The application of Parmenides's theory of being to ideas was, therefore, the great addition made by Plato to the system of the great Italian philosopher, and the Neo-Platonists did Plato an injustice by attributing this addition to Parmenides himself.

hand, he said that *continuity* arises from the simplicity and unity of the sentient principle, I am not sure.

1369. To be convinced, however, that Parmenides in the fragments we still have of him says nothing of the doctrine of ideas, and that consequently this doctrine is due to Plato, it is enough to read those fragments, and the same thing may, in my opinion, be inferred with considerable show of probability, from the dialogue which Plato inscribed with the name of this philosopher. There Socrates is the first to introduce the subject of *species* or ideas, in arguing with Zeno,* a disciple of Parmenides, and both, disciple and master, on finding themselves hard pressed by the stringent logic of the youthful Socrates, seem to feel indignant. The fragments of the poem of Parmenides certainly indicate three systems: 1.° The system of those who admit only being—the Eleatic system; 2.° That of those who admit only non-being, namely, sensible things which are subject to continuous change—the opinion prevalent in the Ionic school, and maintained later on by Protagoras and the Sophists; 3.° That of those who admit being and, at the same time, non-being, and to this class belonged afterwards Plato, Aristotle, and their followers, who tried in some way to reconcile the eternal with the generable. Of the first two of these systems, as being the principal and most pronounced, and the only ones which were well defined in his time, Parmenides speaks in the beginning of his poem:

Age vero, ego dicam, tu dicta teneto audiens,
Quae solae sint quaerendi viae ad cognoscendum
propositae;
Altero, quod est neque potest non esse,
Suadae via est; veritas enim comitatur;
Altera quod non est et quod necesse est non esse.
Hanc vero tibi aio plane falsam esse viam.

But he afterwards subdivides this second way, the characteristic of which consists in admitting non-being,

* Pp. 76, &c., *edit. Bipont.*

into two, namely, the way of those who admit only non-being and deny being, and that of those who pretend that non-being may be admitted simultaneously with being; hence he says *:

Primum ab ista quaerendi via mentem abstrahe.
Deinde vero ab illa, qua mortales utique ignari
Errant ambigui; haesitatio enim in eorum
Cordibus jactat fluctuantem mentem; illi autem feruntur
Surdique, caecique, stupore obsessi, dementia saecla,
Quibus esse et non esse idem aestimatur
Et diversum.†

That is, plainly, a description of the common and vulgar way of thinking, the way of the multitude, which, admitting at once what endures and what does not endure, believes the senses, and draws no distinction between that which truly is and that which, being in continual flux, only seems to be.

1370. But the Eleatic doctrine is founded, not upon one principle only, but upon two, which are: 1.° what continually changes and does not endure is not being; 2.° being cannot proceed from nothing.

Thus far we have spoken only of the doctrine which the philosopher of Elea deduced from the first of these principles, and which shows that the sensible world, because *continuously mutable*, as everybody then supposed, was mere appearance, non-being.

1371. From the other principle Parmenides deduced other properties of being, affirming it to be *eternal*, *necessary*, the *whole* (since outside of it there could not be anything), the *universe*: Οἷον ἀκίνητον τελέθειν τῷ πάντ' ὄνομ' εἶναι ("The Universe received the name of BEING, one and immovable"); in a word, he deduced from that principle the whole pantheism of Xenophanes. Here, then, we can see

* Karsten, *Philos. Græc. Vet. Rel.*, vs. 33-38.

† Karsten, vs. 45-51. I am under the impression that between verses 44 and 45 there is probably something wanting, perhaps a few lines, although Simplicius gives them as consecutive.

what Parmenides derived from his master, and what he added of his own. The doctrine deduced from the principle *A nihilo nihil fit* came to him directly from Xenophanes. The doctrine of the *necessity* that being should have *duration* seems to have been his own, so far, at least, as we may conjecture from the extant fragments of these two philosophers, and especially from Aristotle's work *On Xenophanes Zeno and Gorgias*.

In truth, from the mere principle that being must *endure*, that is, cannot be in continuous change, one cannot legitimately infer that there is but *one being*, and that *eternal*, the *whole*, &c. On the other hand, in order to show that there exists, in point of fact, a plurality of beings, it is necessary to prove that sensible things have duration. Now to prove this, one must overthrow the inveterate prejudice regarding the *continuity* of motion, or in general, regarding continuous change. And this I have tried to the best of my abilities to do.*

* Aristotle attributes the error of the Eleatics to their having seen only that which is *being per se*, which is one, and to their not having distinguished between *being* simply as such (*simpliciter ens*, τὸ ἁπλῶς ὄν) and *potential being* (τὸ κατὰ δύναμιν ὄν); between *being in potentiâ* (τὸ δυνάμει ὄν) and being in act (τὸ ἐνεργείᾳ ὄν). But Aristotle's reasoning moves in a vicious circle. The Eleatics did not admit such distinctions precisely because they proved or thought they proved the absolute unicity of being. Hence, not even Aristotle could overthrow their arguments, because, 1.° he held the doctrine of the continuity of motion in nature, without in the least suspecting the necessity of rejecting it; and, 2.°, he did not know that the First Cause could not produce transient acts within itself, but must produce them outside of itself, which was creation; and this concept entirely destroys the principle of Xenophanes.

CHAPTER X.

SIXTH SPECIAL LAW: THE TERM OF ENTIRE AND COMPLEX THOUGHT CAN NEVER BE INDEFINITE.

1372. *Finite* means that than which something can be thought greater.

1373. *Infinite*, absolutely speaking, means that which nothing can be thought greater.

1374. We must not confound the *infinite* with the *indefinite*.* The indefinite is that which, being capable of always receiving additional increase, has no determinate measure, but is considered simply as susceptible of a continual series of augmentations. Hence the *indefinite* does not express a being, but an abstract idea, for example, the generic idea of number, which corresponds to all numbers, since all numbers, no matter how large their amount, may be increased by a unit. Hence it is manifest that *being* can never be *indefinite* because, as we have seen, the *abstract* (formed by abstraction properly so called) is not a

* In the ancient languages this distinction—a distinction most essential to philosophy—is wanting. The Latin word *infinitum* means, both, that than which nothing greater can be thought, and that than which something greater can always be thought, and whose *quantum* is not determined. In Greek πεπερασμένον means, both, that which is limited and that which is not indefinite or indeterminate, although it may be such that a greater than it cannot be thought. Hence, Parmenides applies this epithet to *being*, although he calls it ἄναρχον, ἄπαυστον and recognises nothing outside of it. In calling it πεπερασμένον, therefore, he manifestly meant to exclude indetermination from it. On the other hand, Melissus, a philosopher of the same school, calls it ἄπειρον, a word which again involves ambiguity, because it expresses, both, that which has confines, but undetermined (the indefinite), and that which by its nature has no confines, because there is nothing to limit or circumscribe it, nothing, therefore, that could be added to it. Hence Parmenides and Melissus seem to be opposed to each other, whereas they are not so. Again, Aristotle, whether because, as his custom is, he wishes to take the philosophers that preceded him strictly at their word, or for some other reason, takes Melissus's *infinite* in the sense of *indefinite*, and hence commends Parmenides for having given to the All the name of *finite*, and finds fault with Melissus (*Phys.* III, i).

being, but only a partial aspect in which the spirit looks at a being, in other words, an object of the abstracting reflection which limits its attention to a certain quality of a being, and therefore always implies the previous apprehension of the being from which the abstraction is made, and in which the abstract is seen.

1375. It has been objected to me that I admit as the primitive object of intuition a universal, indeterminate, abstract being, viz., ideal being.

I have explained myself in regard to this in many places, and, among the rest, in the *New Essay*, where, speaking of universality and indetermination, I used the following words:

"We must not suppose that any one thing can be *universal in itself*. Each thing, in so far as it is, is singular and determinate. A *universal*, therefore, simply means an entity of such a nature that we can by means of it know many, in fact, an indefinite number of things. Consequently, *universality* is nothing but a *relation*, and, properly speaking, can only belong to ideas; for, as we have seen, it is through *ideas* that we are able to cognise an indefinite number of things, and under this aspect each idea is called a *species*." *

And as to the abstractness which, it is alleged, I attribute to the idea of being, I have, in the same work, expressed myself thus:

"When, in the course of this work, I give to the idea of being taken universally the appellation of *most abstract*, I mean, not that it is produced by an abstraction, but only that of its own nature it stands entirely apart *from all subsisting beings*." †

But as it seems to me a waste of time to repeat here what is already before the public, I will rather, in a general way, request the attention of those who honour me with their criticisms to the many other passages in which I set forth my thoughts, being persuaded that their judgments, even when severe, will be of great service to me and to the

* *New Essay*, vol. ii, no. 1020. † *New Essay*, vol. iii, no. 1455.

public, provided they be more attentive than has as yet been the case.

Instead, then, of copying other passages from my previous works, I will here add some considerations which are either new, or expressed in a new way.

1376. I ask, then: Could anyone ever think the abstract idea of colour, without knowing, or ever having known any particular colour? Could he think sound in the abstract, without having ever known any particular sound, and so on as regards other sensible things? I think not.

This conclusion, be it observed, I draw not merely from experience, but from the very nature of the abstract ideas of colour, sound, taste, &c. In truth, what does abstract colour, abstract sound, abstract taste mean? Nothing else than what is common in the particular sensations respectively, of colour, sound, taste. Now what is common, simply common, to several particular things, and not exclusively proper to each of them, cannot be thought without in some way being referred to the particular things in which it occurs.

Now does the same remark apply to being taken universally? At first sight it would seem that it does, because being taken universally is common to absolutely all particular and real things; but upon closer examination we find that it does not apply. The reason is, that this kind of being is not *simply common*, so as to exclude the proper; on the contrary, it includes, in a common manner, the proper also. In fact, *ideal* being [the being seen in the primal idea] is what is realised not only in the substance of things, but also in their accidents, not only in what they have of generic and abstract-specific, but also in what they have of full-specific, or of proper; so that ideal being embraces the whole of the thing, and (although not all in the same way) all that is in it, and hence it is not merely an element common to all beings to the exclusion of what is proper to each of them. It follows, that *ideal being* has a nature entirely different from that of the abstracts, which express only what there is of generic or abstract-

specific in beings, and exclude their differences. Hence abstracts cannot exist in our thought by themselves alone, but require some support in the perceptions or in the full species which the perceptions leave behind them in our spirit, because by themselves alone they are not ideas of beings. The idea of being, on the contrary, has eminently and essentially this characteristic that it manifests each being with all that that being requires in order to be such, although a part of this whole is contained in it [the idea of being] only virtually.

From this first difference there arises a second which shows the very great diversity that exists between abstracts properly so called, and *universal ideal being*. Abstracts express entities of such a nature that they neither have nor can have an act of existence proper to themselves. In fact, no abstract taken by itself alone could furnish an artist with a model for a statue or for a painting. The act of existing is outside of the abstract, or, at least, is rendered impossible by it. No one will ever conceive any proper act of existing in abstract colour, or in abstract sound, or even in abstract substance (considered exclusively of accidents); whereas the idea of being is precisely what manifests every act of existing, and therefore its object lacks nothing of what is necessary for being intuited by thought; although, as we have already observed, thought does not, within that idea, determine anything special, while at the same time it does not exclude it, nay supposes it, demands it, expecting to find it at any moment.

Therefore the characteristics of *ideal being* are, not only not the same as those of *abstracts*, but entirely opposed to them. The former has all that is necessary to constitute being, because it is precisely being intuited by the mind, and, therefore, can be conceived by itself alone; the latter lack, or, to say better, exclude several things necessary to constitute the being to which they relate. For this reason, they cannot by themselves be objects of complex thought, but only of partial thought, of abstracting reflection.

1377. And here we see what there is of truth and what

of error in the doctrine of Dugald Stewart and other Nominalists, who maintain that abstracts are only *words*, which the mind uses in order to pass at pleasure from one particular idea to another; and they adduce in support of their view the use made by algebraists of the letters of the alphabet in order to work out their calculations. These philosophers err:

1.° In not knowing that an idea is essentially a *universal*, although it may manifest the being to which it refers with all its conditions and qualities, even such as are accidental; and that it cannot be called *particular*, except in so far as it is considered in the perception and bound up with it. This, however, is a condition extrinsic to the idea itself, and relative to the spirit which thus binds it. But although the idea is *universal* of its nature, it is not of its nature abstract, since it can manifest everything that is capable of coming within a being. Hence, ideal being, or *any ideal being* which is not an abstract, is thinkable without its being necessary to think any *subsistent being*. In order that we may think a non-abstract ideal being (a *full idea*), no signs are necessary, but it is necessary, either that it should be given to our spirit by nature, or that the spirit should draw it from perception, for which purpose the use of words is not indispensable.*

1378. 2.° Abstract ideas cannot be thought by us if our mind is altogether devoid of the *full ideas* to which they relate. Nevertheless it is sufficient that these *full ideas* be in the mind without any attention on our part; for, as we have already seen, to *abstract* is merely to concentrate and limit the attention of the mind to some quality occurring in a full idea, and withdrawing the attention from all the rest that is contained in it. That ideas or parts of ideas exist in our mind without our giving attention to them is a psychological fact beyond all question, and of the highest importance. These ideas are continually being intuited, but without advertence, or with an advertence that is not directed to one of them more than to

* *New Essay*, vol. ii, nos. 517, 520, 521.

another, and hence it is that we can, when we wish, pass with more or less facility from the abstract idea to the full one to which it refers.* Now this is the part of the truth that was seen, or partly seen, by the Nominalists of whom I am speaking. But from the fact that the abstract cannot be thought unless there be in the mind the full-idea (confounded by them with the particular idea) they drew a false conclusion, namely, that the abstract was nothing in the mind, and merely a sign outside of the mind. To this they were led also by not observing,

1379. 3.° That it is one thing to ask: "What is necessary to an idea simply in order that it may be *thinkable?*" and another thing to ask: "What is necessary in order that a man may be able actually to *form* that idea to himself, actually to think it?" To render the abstract thinkable, it is sufficient that the full idea or ideas to which it refers, and from which it is drawn, be in the man's mind. But to enable the man actually to think that abstract, there must be an end, a term, or a motive impelling him to it, because the activity of the human spirit is invariably roused to action by its term. And since the abstract, as abstract, does not exist, it cannot draw the spirit to it. But if it is tied to a sensible sign, it can stimulate and attract the attention of the mind, and this was why we formerly undertook to show the utility of language, or, speaking more correctly, of signs, for the formation of abstracts, a utility which simply consists in presenting to the spirit a stimulus and term to move it to concentrate and fix its attention in the way we have described at some length,† and shall again submit to examination further on. Now

* Here it must be observed, that when the identical corporeal being is perceived with different sensorial organs, in order that we may have the full idea of that being, it is by no means necessary that we should clothe it with *all* its sensible qualities; it suffices that we clothe it with the qualities that are found in any one perception, and a perception is always limited to a single sensation. If it were further asked how it is that the being given us by several perceptions of the same sensorial organ, or by perceptions of several organs, is identical, my reply would be that this arises from the association of sensations and perceptions, which takes place through the identity of space, and through reasoning (See *New Essay*, &c., vol. ii, no. 941, &c.).

† *New Essay*, &c., vol ii, nos. 521, 522.

this fact also, not being properly observed by the Nominalists, helped to mislead them. From the utility of language for the *formation* of abstracts, they concluded that these abstracts were nothing in themselves, and therefore incapable of being either formed or thought without the signs afforded by language.

1380. 4.° Lastly, the example which they adduce in confirmation of their doctrine, viz., the use that the algebraist makes of the letters of the alphabet, far from telling in their favour, does exactly the contrary. Surely, that which the letters of the alphabet mark for the algebraist is different from the truth which he tries to discover by their use. It is true that algebraic signs indicate abstract quantities (and discrete quantity, even when it is determinate, is always an abstract); but the algebraist does not use it merely to mark such quantities, but principally to discover their relations. In fact, when he writes $a + b, = d\text{-}c$, what does he aim at? He aims, in the first case, at expressing the relation of addition which exists between any two quantities (abstract and indeterminate) marked by the two letters a and b, and, in the second case, the relation of subtraction which exists between any two quantities marked by the two letters d and c. Now when, equating the two functions of a, he found that $a = d\text{-}c\text{-}b$, that is, that the value of a was equal to the value of d *minus* the sum of c and b, his mind directed its attention to the relation of equality between the two functions, and, as a result, united them by the sign of equality; then he directed his attention to the consequence which sprang therefrom, and this consequence was the discovery of the value of a relatively to the other three letters. If then the algebraist carried on his calculation keeping this relation in view, and united these letters by various signs, it is evident that his mind thought of the said *relation* and its consequences before he put down upon paper the signs which expressed them. He, therefore, thought them without their signs, and the signs came afterwards in consequence of their being already in his mind. But *relations*

are themselves abstractions, and abstractions of a much higher order than those of the simple quantities between which they intervene. Hence, the use of algebraic signs plainly proves that abstracts are *thinkable* by themselves without any need of signs, and that the use of these would be impossible, if the mind did not, in fact, think the abstracts without them. The use of algebraic signs, therefore, implies that the mind has already come into possession of abstracts, and very high ones, but does not explain in the least how the mind formed them; much less does it answer the question: "What is necessary to make them thinkable?" Signs merely help the mind to keep before it the series of the relations, which from its length and multiplicity would otherwise be very apt to vanish.

CHAPTER XI.

SEVENTH SPECIAL LAW: THE TERM OF COMPLEX THOUGHT IS EITHER A FINITE OR AN INFINITE; BUT THE ONE CAN NEVER CHANGE INTO THE OTHER.

1381. Being, therefore, cannot be indefinite, and so the indefinite, not having all that is necessary to constitute being, cannot by itself be an object to thought.

But although being never can be indefinite,* it may be either finite or infinite.

1382. Now what we particularly wish, in stating this law, is that the reader should carefully note that *finiteness* or *infiniteness* is an ontological quality, that is, a quality so essential to the being respectively thought, that it could not be detached from that being without destroying its identity.

Hence, if a being be finite, it never can, however much it may be increased or multiplied, change its nature; it will always remain finite.

In like manner, if a being be infinite, it can never be divided so as to be rendered finite. And if in the infinite our mind can distinguish more things than one, each of

* Here someone may say: How is it, then, that you call ideal being, which essentially constitutes the object of the human mind, *indeterminate?*—I call it indeterminate, not as though it were so in itself, but because it is so relatively to contingent realities, as the means of knowing these realities, inasmuch as it does not make known one more than another unless feeling be added to it. The *indetermination* of ideal being, therefore, is not a quality inherent to it, but only a relation which it has to contingent things, and which remains indeterminate. Consequently, it is an indetermination foreign to ideal being itself. Thus a portrait resembling several persons at once would be called indeterminate, although it would not, on that account, be so in itself. In like manner, a portrait of which no one knew the original, would be considered as indeterminate until that original was discovered; but *in itself* it is always determinate, whether the original be known or not.

these must still be infinite, and must, whether we advert to the fact or not, contain, either virtually or actually, all the rest; otherwise it is no longer of that being that we think.

1383. Another consequence follows. If the infinite is thought, it must be thought entire, or not at all. Nevertheless it may be thought in a *limited mode*, but the limitation must be attributed to the *mode* of thinking, and not to the object of the thought. This limitation, solely due to the mode of thinking, takes place when the intelligent subject who thinks an infinite being is aware that he does not think it in its totality, in other words, is aware that beyond that part of it which his thought embraces, its nature extends without confine or measure, and that what he thinks contains all, although, to him, it appears only virtually and implicitly. Clearly, this belongs to the *mode* of knowing. Thus a person who has poor sight will not see a man so well as one whose sight is good, and still both see the same man.

1384. To make this clearer, let us remember that thought has for its object, 1.° ideal being, which, as we have seen, does not admit of measure; 2.° real being, which admits of measure.

Hence arise two questions:

1.° How can infinite ideal being be thought? I reply: In the manner in which the fact shows that it is thought. Now, when after being simply thought, it is also observed, the observer, by making use of reasoning, soon discovers that in its infinity it is so absolutely simple as not to admit of any division or separation. Hence the question here proposed is not even possible, and ought rather to be replaced by this other: "How is it that we cannot think ideal being except on condition of thinking it as infinite?" To which the reply would be as above: Because it is perfectly simple and one.

1385. 2.° How can infinite real being be thought? To this I answer: Infinite real being is the same being that is seen in the idea, under the form of reality. Now for the same reason that the ideal, though infinite, is seen, there is

no absurdity in saying that the infinite real can be seen, since it is the identical, perfectly simple one, that is intuited in the ideal.

1386. But though these replies are sufficient for those who can dive to the bottom of this question, nevertheless it seems advisable to give a fuller exposition of them. The truth is, the perceptions which most rivet the attention are those of bodies and other contingent things. As a consequence, people, when discoursing on the perception of the real, are wont to be guided by what they know of these, as if there could be no other way of perceiving; and yet it never will be possible, by means of such, to explain the perception of the infinite, which belongs to a supernatural order. This is why the possibility of the perception of the infinite is so difficult to understand.

Bodies are perceived by a true *action* which they exercise in us. Hence what we think in the concept of bodies is a mixture of *subjective* and *extra-subjective*. This corporeal being, which is made up partly of our own feeling, and partly of a force acting in it, is not *per se* an object of thought, but is thought in the object [ideal being. TR.]. The object, therefore, is foreign to it, but the mind unites it to the corporeal being as a necessary means of cognition.

If we consider the perception which we have of ourselves, in so far as we are each of us a substantial feeling, we again find that what we think in this perception is simply the *subject*, which is objectified by us, because otherwise it could not be intellectually perceived.

Since, therefore, the subject is finite, all that is known either in knowing it or its modifications, or in knowing the agent that modifies it, must necessarily be finite; because the finite cannot feel in itself any *modifying* action but a finite one, even as the modification produced in it can only be finite.

Moreover, since the percipient *subject*, that is ourselves, is multiple, all that is perceived as a passion or modification of this multiple, or as the immediate agent or cause of such modification, cannot be perceived as altogether one

and simple, but must be perceived with a certain multiplicity; since wherever there is a confine, there necessarily is multiplicity.

The infinite, therefore, being in the highest degree one and simple, cannot be perceived in this way, that is, as a modification of ourselves, or as the force which immediately produces it.* Hence, if there were only this kind of perception, the perception of the infinite would be inexplicable; but there is another kind.

The infinite being is essentially *object:* therefore, in the perception of the infinite there can be nothing subjective. Now when we say that it is object, we mean that we know it by distinguishing and separating it from, and placing it in opposition to, ourselves. Here there is no *passion* produced by the infinite in the subject, no perceiving the infinite as *agent;* the infinite is perceived simply as *being:* and if it is the cause of transient acts, these cannot be confounded with it; they are external to it; they do not constitute its concept. This object, therefore, is not confounded with the subject, but is intuited and perceived in itself; consequently it cannot receive from the subject any confine or multiplicity affecting itself.† Such being the case, the subject, in order to perceive the infinite, has no need to give it its own measure, as must happen, for example, in touch, in which the part touching is measured by the part touched, or to attribute to it anything of its own limitation. In this way the seeming impossibility that a finite being should perceive an infinite one (I mean, of course, in the supernatural order), is removed, and the principle of Protagoras, "that man is the measure of all things," falls to the ground.‡

1387. It may be said that this kind of objective percep-

* *New Essay*, &c., vol. ii, nos. 680-684.

† *Restoration*, &c., Bk. III, chap. xlvii.

‡ Here be it observed that the *intellective principle*, as such, has its whole activity actuated in the object, and hence receives from it this singular condition that, as such, it cannot act, or even be acted upon by another agent, but can only intuite, know. If it acts, it does so only because, besides being intellective, it is something else, that is, sensitive (whence it is called rational), and in acting derives the law of its action from what it knows, and its action may even consist in the fruition of what it knows.

tion is mysterious. Certainly it is so, and it appears mysterious to man because he has no example of it in any of the perceptions of finite things, from which he arbitrarily deduces the law of perception. But this does not render it any the less an undeniable fact—a fact of which we have an example in nature in the intuition of ideal being. Now the fact of this intuition must be admitted even when it seems mysterious to us in consequence of its running counter to our usual habit of reasoning; which, after all, is the only objection that can be urged against the admission, there being really nothing absurd in the fact itself; on the contrary, those who have strength of mind enough to rise above such habits, which have the effect of unduly limiting the sphere of human reasoning, come to see quite plainly that this fact is evidently true, and so necessary that, without it, none of the operations of our mind could be explained, and all thought, no matter of what class, would be impossible.

1388. It is true that from the perception of the infinite the percipient subject afterwards experiences in himself a feeling of jubilation and felicity, which is so peculiar as to be altogether unlike any other feeling, and to bear testimony to its infinite source. But this feeling is only an effect of the objective perception; though closely united with this perception, it is not the perception itself, and can never be confounded therewith. It is finite, but, being indivisible from the objective perception, it seems to be itself also infinite, inasmuch as that perception is, in the unity of man, so conjoined with it, as to form, so to speak, its complement and apex.

Hence, by taking this objective perception in union with the feeling produced by it in the subject, that is to say, by taking this communication of the infinite to the finite as one whole, we find that the knowledge of the infinite is, on one side, infinite, and on the other, finite. It is infinite relatively to the *object* intuited and perceived, it is finite relatively to the *feeling* which it produces in the subject.

1389. For this reason it can be said with perfect truth,

that by the blessed in heaven, who enjoy the beatific vision, God is perceived *entire* but not *entirely*, inasmuch as the object is God Himself without any division; but the feeling produced in them by the object is not equal to *all the action* that God could cause to be felt. God, therefore, is perceived entirely as *being*, but not entirely as *agent*. But we must show how God can be an *agent* in those intelligent creatures that perceive Him.

1390. The concept of God as *acting* in the subjects that have perception of Him may be falsified in two ways: the *first*, by making God do nothing at all, and the subject alone act by deriving from the infinite object of his own perception the joyous feeling that forms his beatitude; the *other*, by making God act in the subject in a subjective way, as finite beings do in man, by simply modifying him.

Between these two erroneous views there is a third, which is the true one. Granting, then, that God, when giving Himself to be perceived, acts most powerfully in the percipient subject, and yet does not act by immediately *modifying* that subject, I ask, what is that mode of acting upon the finite subject, that belongs to God alone, and does not consist in a simple modification or passion?

Be it observed that when we say *simple modification* or *passion*, we mean that the *substance* of the subject is not changed, or increased, much less produced: it remains what it was before that modification or passion happened to it; it is still identically the same in quantity; only that it is in a new mode; or to put the thing in another way which expresses still better our concept, the agent which simply modifies that substance does not produce it, but supposes it as already produced and capable of receiving its action. On the contrary, the action of God is always a a creative action,* that is to say, He operates by an act which posits a being with its determinate quantity and quality, and does not suppose it to be already subsistent so that He may operate in it.

The reason of this is, that God is the cause of the whole

* *Theodicy*, nos. 547, 548.

being, and since God does everything with a single and perfectly simple act, He must necessarily, by the same act whereby He posits the substance, posit also its accidents, whatever duration they may have, and not produce the accidents by a different act. Any other mode of action would conflict, not only with the singleness and simplicity of the act whereby God does all that He does, but also with the perfect simplicity of His substance.* Indeed, in God, substance and action are identically the same thing, whereas, in created beings, the substance is one thing and the acts of the substance are another. In fact, we have seen that in created substances there can be transient acts, whereas God can indeed be the *cause* of transient acts, but these can never be in Him, and must necessarily remain distinct from Him. Since, then, in created natures, *activities* and *substance* are distinct, it comes to pass that when one nature acts upon another, it enters into the other merely with its activity and not with its substance, and that the activity of the one can only modify the activity of the other, but never produce the substance itself. If, therefore, God were the immediate agent in substances, and modified their activities without creating the substances themselves, but supposing these to be already in existence, then the activity of God, and not His substance, would enter into the contingent substances, because what is passive and modified never receives the substance but only the activity of that which is active and modifying; consequently there would be in God a real division between His action and His being, to say which is an absurdity. The necessary outcome of this is, that God cannot act except by way of creation, that is, by creating at every moment the whole of the contingent being, I mean the being with all its modifications, since it would be equally absurd to say that God enters with His substance into a being which did not yet exist.

* When we apply the terms *substance*, *action*, &c., to God, we do not mean that these concepts apply to God in the same sense as they do to created things, but we use them in the sense explained by theologians, and which has been especially elucidated in the work *De Divinis Nominibus*, and in the writings of St. Thomas.

It is, then, a settled point, that the substance itself of an agent can never be received into a being on which that agent happens to act.

If the reader bears all these things in mind, he will no longer find it difficult to understand how God, when perceived, can act, and act most powerfully, in those who perceive Him. For in this act two things occur:

1.° The intelligent subject, to whom the perception of God is given, and who, therefore, possesses God as *object* of his intellect, may by his own activity cling to God and enjoy Him with all his might through loving contemplation;

2.° At the same time, those forces whereby he enjoys God are given to him in a certain measure by God Himself as his Creator, that is, as that cause which produces him totally with all the acts of fruition that he performs.

1391. Hence the fruition is limited, because it is an act of the subject (an act, however, created by God along with the subject); but the *object* of the fruition is infinite. It is in this sense that God is perceived *entire*, and cannot be perceived otherwise, being indivisible. Nevertheless, He cannot be perceived entirely in respect to the good derived from Him by the subject, because the nature of the subject, and the forces of this nature, and the acts of these forces are limited.

1392. Hence it also follows, that what is enjoyed of God is always God, because the entire God is enjoyed; but from the limitation of the act whereby an intelligent subject adheres to God, it seems as if God were divided, since different subjects endowed with different amounts of force enjoy Him differently. And yet they all enjoy the *infinite*, and it was in this sense that we said that the object of complex thought is either an infinite or a finite being, and that the one can never change into the other; although the infinite, in consequence of being enjoyed in a greater or lesser degree, seems to be divided, diminished or increased in our concept of it, when this concept takes as its measure the relation of the infinite being to its fruition.

But this kind of relative diminution does not, in the least, deprive it of its infinity. Were this infinity to cease, the object of the mind would *ipso facto* be another.

1393. In this way we can also explain how God may be conceived—always in a negative or virtual way—under various concepts, of subsistent wisdom, subsistent goodness, holiness, &c., because each of these concepts equally contains the infinite. The multiplicity of concepts (with the exception of those of the three Divine Persons) is all due to the conceiving subject and to the different and manifold experience which he obtains of them, because he is himself limited and manifold.

1394. But since the perception of God belongs to the supernatural order, the question here presents itself, "Whether this multiplicity of concepts under which man is now able to think the self-same God, will altogether cease in the beatific vision." It seems to us that this question, by no means an easy one, may be answered as follows:

In the first place we must remember, that if we mentally separate from the object of thought anything that is essential to God, that object is no longer God. Now it is essential to God that His *subsistence* and His *essence* should be identically the same thing, the same perfectly simple being. The *essence* of being, therefore, separated from *subsistence*, is not God. Inasmuch, therefore, as the object of the intuition which man has by nature is the essence of being (ideal being) only, and not its real subsistence, it is obvious that that essence cannot be called the essence of God; consequently man does not by nature see God. This truth is proved equally by experience, by reason and by the Christian faith. In fact, to be convinced that the divine subsistence is not naturally in the human intellect, and that there is in it purely an idea or notion of being, man has only to reflect upon himself. A great part of mankind will not only not find that they have, as the natural object of their understanding, the *subsistence* of being, but they will not even be able to observe that they see the

essence of it. The divine subsistence is a thing so great and so precious, that no one who had it as the object of his thought would be unaware of the fact. On the other hand, reason demonstrates that the supposition that man has naturally the vision of the divine subsistence is in no way necessary for explaining any of the operations of the human spirit. Likewise, it demonstrates that, were the vision of God natural to man, anyone who wished could enjoy beatitude, since he would always have at his disposal the fountain of beatitude; but this is not the case. Finally, to say that man sees God by nature is *a manifest error against the Christian faith*, which reserves the vision of God for the blessed in heaven.

If, then, it is not given to man here below to see the identity between the essence and the subsistence of being, and so to see God, his knowledge of the Supreme Being must needs be obtained *through reasoning* and not through immediate intuition. Now reasoning leads him to know that God *is*, but not to know the *mode* in which He is, since this mode is hidden in His subsistence.*

In the beatific vision, on the contrary, where the subsistence of being is perceived, the *nexus* of identity between this subsistence and the essence of the same being will be seen, and this *nexus* will reveal God. Hence God will be seen "as He is" (*Sicuti est*, I. Io. iii, 2), the imperfection of human reasoning having then come to an end (*et scientia destruetur*. I, Cor. xiii, 8).

But if it were wished to investigate through reasoning whether this divine subsistence will appear to the blessed divested of all relations to created things, we should at once answer in the negative. Our opinion is, that it will be seen in its creative relation to these things and not otherwise, and in this relation its infinite perfections will be contemplated, as we have explained in a former work.† Now since the relation of God to created things is manifold, not on His part but on theirs, they being many, it follows that the divine perfections will appear manifold,

* *Theodicy*, nos. 55-74.

† *Ibid*, nos. 660-698.

though in a different way from that in which they appear to us in this life. Our vision does not now penetrate so far as to reach the divine perfections at their perfectly simple source, in which each is identified with each, and all with being itself; but it will then. We shall thus see that those divine perfections which in created things now appear, and will even then appear, manifold, are, in God, His perfectly simple being itself. At present we see that this must be so; but the way in which it is so remains a mystery to us, because we find nothing resembling it in nature. Hence even in that state we shall be able to express to ourselves the divine being through different concepts, but in each of those concepts we shall behold the same being; and, therefore, that multiplicity will not in any way hinder us from seeing God as He is, because we shall at one and the same time see how the divine perfection diffuses itself in many relations, and how in all these relations it is identically the one primordial and essential perfection.

1395. Furthermore, at present, when we think of a perfection, for example, wisdom, we see it in a limited form, and it is only by reasoning in the way which theologians call *via eminentiæ*, that we understand that in God it must be unlimited. Hence I have said that when we think God as subsistent wisdom, &c., this our concept of God is virtual, not actual. In the other life, we shall not infer this necessity by reasoning, but shall see directly that the thing is so, we shall see it as a fact, because we shall see wisdom itself as infinite and necessarily infinite, and therefore we shall much more understand directly how it can be so.

If, then, the divine perfection will appear to us as much one as the central point of a circle is one, and yet the principle and term of all the radii; it is obvious that each of the divine perfections will then be sufficient to make known to us the entire God, just as that term or principle of a single radius is sufficient to make known to us the centre of the circle. Consequently, in each of them we shall always see the same infinite.

Thus the infinite being, although it seems to be divided on account of the various aspects in which it is regarded, never ceases to be infinite, and so infinity is a condition belonging to infinite being itself, just as finitude belongs to finite being. Therefore the law of thought laid down in this chapter is true.

CHAPTER XII.

ON THE ONTOLOGICAL LAWS WHICH GOVERN THE PRACTICAL REASON IN GENERAL.

1396. Such are the principal ontological laws which the rational principle obeys in its operations. We must now pass on to those that govern the operations of the practical reason.

The reason which we call *practical* is not reason in so far as it determines what is necessary, or proper, to be done; this is still the theoretic reason [διάνοια θεωρητική]. The practical reason is the *rational principle in action.** Now this rational principle in action is subject to the laws of which we are now speaking. What are these laws?

1397. They must necessarily be the same as those of the theoretic reason, because this is reason considered in its first acts, while its subsequent acts belong to the practical reason. Hence these laws could never cease to be in force without reason itself disappearing. Inasmuch, then, as the *practical reason* is likewise reason, and there is but one rational principle, which in so far as it knows is called theoretic, and in so far as it acts is called practical; † it is plain that the same laws which prevail in speculation must prevail in action, since they flow from the nature of the one principle common to both. Theoretic reason is the identical reason that becomes practical when it acts. It is as reason, namely as knower, that it acts; therefore, the laws of its knowing must also be the laws of its acting.

* See *Preface to the Philosophy of Moral Science*, and also *Treatise on the Moral Conscience*, nos. 18-22.

† On the error of Kant, who divided the theoretic and the practical reason into two faculties radically different, see *Theodicy*, no. 161.

1398. These laws, then, are *natural* to reason, just as the laws of the communication of motion are natural to bodies. But here arises a difficulty. Sensitive nature, and also that nature which is only sensible, invariably obey their laws: why does not reason do the same? In fact, reason breaks its laws when it falls into *error*, which involves a violation of the laws of reason in so far as it is theoretical; and it infringes upon them when it falls into *sin*, which involves a violation of the laws of reason in so far as it is practical. To reply simply that reason is free and, therefore, can break the laws imposed on it, does not meet the difficulty, because, in saying this, one is merely stating the fact which seems to conflict with the concept of *law*, and the difficulty in question requires precisely that this contradiction should be cleared up, and that satisfactory proofs should be given that there are laws which, although truly *natural* [*i.e.*, flowing from the nature of things. TR.], may nevertheless be violated, whereas the character of *natural law* seems to imply the impossibility of such law ever being violated.

The solution of this difficulty is found by considering, that in the operations of the rational principle there intervene foreign agents subject to other laws than those of the reason, so that the violation of the latter is due to a collision of various laws differing in character, which is also what explains the marvellous fact of human liberty. We have already spoken of this in another place;* but we will return to it after we shall have stated the supreme law of the practical reason.

* *Theodicy*, nos. 384-415.

CHAPTER XIII.

CONTINUATION. — SUPREME LAW OF THE PRACTICAL REASON: "RECOGNISE BEING."

ARTICLE I.

The Supreme Law Stated.

1399. We must show that the principle of cognition which constitutes the supreme law according to which the theoretic reason operates, supplies likewise the law according to which the practical law *ought to operate.* Hence if the law of the theoretic reason says: "Being is the object of knowing," the law of the practical reason says: "Being ought to be the object of practical knowing."

We say that the theoretic reason acts according to the principle of cognition, because either it does not act at all, or if it acts, it must follow this principle; for, as to errors, they must, as we have seen, be attributed to the practical reason.

We say, on the contrary, that the practical reason OUGHT TO act according to the same principle, because its operation may take place in two ways, namely, either according to its law, or in defiance of it. If it takes place according to its law, it is right; if in defiance of the same, it is wrong. This is exactly what we said stood in need of explanation; before giving which, however, we beg leave to elucidate some matters which will prepare the way for it.

ARTICLE II.

Explanation and Proof of the Supreme Law.

1400. Non-sensitive being is not the subject either of good or of evil. It always acts according to its necessary laws and, therefore, is always in order. It is only man that, requiring of it something different from what it really does, attributes to it, by a kind of secret illusion, good and evil. This happens because man connects it with his ideas, with which in truth it is not connected. "This," he says, for example, "ought to be a pear, and look! it is gnawed by insects, therefore it is a bad pear."—Yes, if it were true that it ought to be a perfect pear, and to have in it all that is contained in the idea of pear; but your *ought to be* is not in the pear. Measure it by the *full-specific idea*, and you will find it what it ought to be. To test it by the *abstract idea* is to look at a relation which does not go to constitute its intrinsic order, but only goes to constitute its hypothetical and extrinsic order by means of an idea imposed upon it by yourself. In a word, matter, whatever form it may have, is not a *subject*, because a subject is always a *principle-being*, whereas the concept of matter is solely that of a *term-being*.

1401. Sensitive being and rational being, on the contrary, are subjects of good as well as of evil.

The good of each consists in an activity into which its evil also is resolvable, because each may have an activity either in harmony with its essence, or in disharmony. In the former case it is in a good state, in the latter, in a bad one. The essence of the sentient principle requires that its activity should be able to display itself without finding any obstacle on the part of its term. If it finds obstacles, the result is pain, which is its evil.

The same is true of the rational principle. It has an activity which, according to the intention and conation of its essence, seeks to display itself in a given way. If for any cause this activity does not display itself in that way,

but in a different one, disorder follows; the rational principle suffers because, being all feeling, it cannot but feel its own disorder.

1402. But if up to this point the good or evil state of the sensitive and rational principles can be included under one formula, there is very soon manifested the infinite difference which exists between the good and evil of the one and the good and evil of the other. This we must explain. The difference in question is due to the difference of the terms of the two principles; for it is by these terms that their activities are aroused and their nature is determined. The good and evil of a being susceptible of either good or evil lies, as we have said, in the different mode in which the activity proper to it is disposed.

Now the term of the sensitive activity is the *material extended* and its passions; the term of the rational principle is *being*.

Hence the sensitive activity is the seat of the good of the sensitive being, which good is attained when the being is able to diffuse in the extended its passions so as fully to satisfy its instinct. On the other hand, the rational activity is the seat of the good of the rational principle, which good it attains, when it adheres, without resistance or strife, to being, its term. Hence the first law of the reason: "Adhere to being."

1403. In fact, the rational principle can never cease to be rational, and, therefore, can never cease to have being for its term. Consequently, if the rational principle has an *activity* of its own, this activity also must have being for its term. But the rational principle has truly an activity of its own, and is not merely receptive. Therefore, the law of this activity must come to it from being, according to the principle that every subject susceptible of good or of evil attains its good when it adheres perfectly to its term, and its evil when it does not adhere to this in the way that its essence demands.

The rational principle, therefore, being always the same principle, whether it is merely receptive and takes the

name of theoretic *reason*, or is active and takes the name of *practical reason*, must always have the same term and from it must receive the laws of its action.

ARTICLE III.

On the Moral Liberty of the Practical Reason.

But since the rational principle, in so far as it is receptive, does not act, but simply receives in its own way, which is that of intuition, it clearly follows that its union with its term does not depend on it, but on the term, on the being which is given it to intuite. Thus its constitution is fixed and determined by a necessity foreign to it, a necessity which constitutes it what it is.

In so far as it is active, on the contrary, the rational principle posits its own act. If that act is done, it is itself that does it; if it is not done, this also is due to itself as the cause thereof. Consequently, the necessity of such act cannot be as essential as that of the receptivity to [ideal] being; because, even if the activity of the rational principle did not display itself in its proper and right action, this principle would still exist, whereas it would not exist at all if [ideal] being were not given to it. The first difference, therefore, between the rational principle in so far as it is theoretic, and the same principle in so far as it is practical, consists in this, that *the primal theoretic act is necessary to its constitution, whereas no practical act is thus necessary.*

1404. This simple fact would, as we said above, be sufficient to explain how it is that a principle can deviate from its *natural law*. But the complete explanation is found only by examining what moral liberty is, how this power is constituted, and how it results from the collision of agents categorically opposed; all which things have already been developed by us, and are, therefore, supposed as known to the reader.

ARTICLE IV.

Specific Difference between the Acts of the Theoretical Reason and those of the Practical Reason.

1405. It remains, therefore, to see in what the nature of the activity of the rational principle as such precisely consists; because the word *activity* is applicable to all beings. For this purpose it is necessary, in the first place, to show how the activity of the rational principle differs from all other activities, and then to distinguish it from the receptive and primordial activity of the theoretic reason.

It is evident that the activity of the rational principle can be no other than a rational activity; it must, therefore, be a species of knowing. But the first knowing is that of the theoretic reason. The activity of the practical reason, therefore, must be another knowing, a knowing accompanied with delectation in the object known, with an appropriation of it to oneself, with a finding one's own good in it. Hence being, considered in relation to the practical reason, has the concept of *good.*

1406. To characterise in one word this active and vivid knowing, accompanied with delectation, we call it *practical recognition.*

And this act of the practical *reason* is the first act of the *will.*

The supreme law of the theoretic reason, then, is also the supreme law of the practical reason. The difference lies solely in the different relation which the two reasons have to the same term, being. The theoretic reason has towards it the relation of *receptivity*, and the practical reason that of *adhesion.* Both these relations have been already explained.

ARTICLE V.

On Entire Thought, and Abstract Thought, considered in relation to the Practical Reason.—The Supreme Law of Prudence.

1407. Let us, then, apply to the practical reason what we have said respecting the supreme law of the theoretic reason.

In the first place, we have distinguished *entire thought* from *abstract thought*, and have observed that the latter may indeed attract the attention and become its exclusive term, but cannot stand alone in the human mind. In the mind there must always be *entire thought*, though it may be there neglected and unobserved. The reason of this is manifest. Since "the object of cognition is being," there cannot be any cognition unless there be in the mind all that is necessary to constitute being. Still part of this may be in the mind so as to be actually attended to, while the rest is not.

Now this doctrine is of very great importance in connection with human action. The practical reason has in it a most noble law, which is "The supreme law of prudence."

1408. Though attention is an activity that belongs to the practical reason, nevertheless it has an influence on the theoretic reason and reinforces its acts. This arises from the fact that the practical reason, as we shall see more clearly further on, acts in such a manner as indirectly to affect in various ways the theoretic reason itself. In attention, therefore, the practical reason already begins to operate, and those cognitions to which the spirit gives attention become more readily and effectually norms and principles of human action.

1409. Hence man may direct his action in either of two ways, that is, either according to what he knows through *entire and comprehensive thought*, or exclusively according to what he knows through *abstract and partial thought*. If the human actions correspond to entire and comprehensive thought, they also are complete and comprehensive; if they

have as their norm only abstract thought, they are defective and imperfect. Herein lies the supreme law of prudence which may be thus formulated. "Act in accordance with complete thought;" or, by a negative expression: "Beware of acting according to an abstract or partial thought."

1410. Here, however, we must observe that action in accordance with entire and comprehensive thought may be of two kinds, one more perfect than the other. If the thought is entire, but has not been analysed nor subjected to abstractions, the corresponding action will be substantially prudent, but at the same time deficient in some accessory, and, therefore, imperfect in its accidents. Thus there are two grades of prudence, the one belonging to those who act according to entire and comprehensive thought, but without analysis or abstractions; the other, more perfect, belonging to those who act according to entire thought and, at the same time, according to abstract thought, taking the latter, not by itself, but in union with the former, in other words, considering the abstractions as conjoined with the objects from which they are drawn.

1411. Although this doctrine is most important, we refrain from developing it further here, because the reader may find a most luminous example of its efficacy in the application which we have made of it to political prudence in the work entitled *Society and its End*,* in which we have called the faculty of entire and comprehensive thinking, the *faculty of thinking* simply, and the other the *faculty of abstraction*.

1412. From this general rule there proceeds that more special one, which we have developed elsewhere,† and may be thus formulated: "In action cling to the substance and never sacrifice it to the accidents." It is plain that into the object of entire thought there must necessarily enter the substance, which is the first act of every real being,

* Book IV, chap. xxxv.—This treatise is now printed in the *Philosophy of Politics* (Tr.).

† *On the Summary Cause why Human Societies Stand or Fall*, printed in the same volume.

and can be wanting only in the object of abstract thought.*

ARTICLE VI.

Application of the Supreme Law to the different Generic Acts of the Theoretic Reason in relation to Practice, and, first, to Intuition.—Law inclining man to Contemplation.

1413. Moreover, just as the theoretic reason has different acts which we have reduced to three—*intuition*, *perception* and *reflection*—so the special laws to which these acts are subject, must reproduce themselves, or have their counterparts in the practical reason. This is what we have now to explain.

1414. Intuition has being for its object, the whole of being, but only under its ideal form. Now since ideal being cannot be enjoyed, or adhered to, otherwise than through contemplation, it follows that the practical reason has, as its special law, *inclination to the contemplation* of the idea, which becomes afterwards, by being considered under different aspects, truth, exemplar, beauty, &c. Every inclination belonging to a being is a law of its action, because its action and, in general, its activity is in a good state when it is in harmony with its essential and natural inclination.

1415. In order, however, that the inclination to the contemplation of ideas may pass into act, certain conditions must be fulfilled; otherwise the natural intuition will remain without active effort and, therefore, theoretical and not practical.

1416. The first and chief of these conditions is that "real being be compared with ideal being." The reason is, that although properly speaking it is real being that constitutes the term of the *rational* activity, nevertheless every real being is presented to the rational principle through and in the idea; whence it comes to pass, that the

* Prudence is a moral virtue if it is complete, not otherwise. The law of prudence stated by us is applicable equally to prudence taken as a virtue, and to prudence taken as the hability to find the means of attaining any end whatsoever.

activity, moved to action by the real term, falls also on the idea and, when once moved, can fix itself on it. In this way is developed *active contemplation*, which may be called simply *contemplation* in contra-distinction to *intuition*. And as in every act of the rational principle there is a certain delectation taken in its object, so also there is love, which, defined in a general way, is "The fruition of the object contemplated."

ARTICLE VII.

Continuation.—Law inclining man to every Real Being.

1417. In the second place, intuition produces in the rational principle an *inclination*, or pre-disposition toward every real being, because the essence of every real being is already comprised in ideal being, although only virtually, in other words, in such a way that the *mode* of each being is not seen until it is perceived. And this is what philosophers usually mean when they teach that *objectum appetitus intellectivi, qui voluntas dicitur, est bonum secundum communem boni rationem.**

1418. Ideal being, therefore, the object of intuition, taken by itself, produces in man inclinations and propensities, but no acts. These come afterwards when the proper stimuli are given. The inclinations may be reduced to two. 1.° Inclination to contemplation; 2.° Inclination to every cognisable real being.†

ARTICLE VIII.

Perception considered in relation to the Practical Reason.—Law of Moral Order.

1419. Let us now consider perception, and see in what way the laws to which perception is subject affect the practical reason.

The law of perception is this: "The limited being per-

* *Sum. Theol.*, Pt. I, q. lix, a. iv. † *Theodicy*, nos. 389-394.

ceived in feeling must be referred to ideal being and be seen in it." Hence in perception there are three things: 1.° Feeling or reality; 2.° Ideal being; and, 3.° The relation of (imperfect) identity between the two.

Ideal being is infinite and, *per se*, embracing the totality of being. Hence if real beings are rationally perceived through our referring them to ideal being, they are perceived along with their measure; because by referring them to the totality of being, we see which of them has more, and which less, of realised being in it.

1420. Now, inasmuch as the term of the practical reason is being as given by the theoretic reason and all its functions, it follows that perceived being also is its term. And since the act of the practical reason consists in adhering to its term, it follows likewise that this reason must adhere to perceived beings in accordance with the way in which they are perceived. But they are all perceived as measured by ideal being, so that one is seen to have more of beingness, and another less. It is, therefore, a law of the practical reason, that it should adhere to beings proportionally to their several measures of beingness. And even when the rational subject perceives only one real being, he sees, by comparing this with ideal being, whether it be limited or unlimited, and it is his duty to adhere to it as he finds it, that is, with an affection exactly proportionate to its merit.

Now this is the moral principle, "The law of moral order," which enjoins that the affective recognition shall be distributed among known real beings in proportion to their measures of beingness, considered both in relation to complete ideal being, and, in case they are more than one, in relation to each other.*

* How the ideal is always the measure of the real has been explained in the *New Essay*, &c., vol. i, nos. 180-187.

ARTICLE IX.

Continuation.—Every Moral Act has the Infinite for its object.

1421. Hence there follows another most noble consequence, namely, that moral good is infinite in its nature, inasmuch as its object is always infinite being.

Indeed, limited being is never, in perception, presented alone and as related only to itself, but always as united to the ideal, which is complete and infinite, and as measured by it. Hence the object of the practical reason is never confined to finite real being, but always unites it with the ideal infinite, and, conjointly with this, makes it its own good; adhering to it only to the extent prescribed by universal-ideal being. Hence the act of adhesion obeys this universal-ideal being as its supreme norm and rule, and, therefore, holds it in greater reverence than any finite real.

1422. Herein lies precisely the *essential characteristic* of what is moral, that is, in always embracing the *whole of being*, in terminating in this whole and regulating itself in accordance therewith. Hence the moral good is a good of an infinite nature, not comparable to any finite good, such, for example, as eudœmonological good, which, when unaccompanied by moral good, terminates in the finite.

Man, therefore, through moral goodness becomes *ordered* with respect to the whole of being, to infinite being; and this is why this order, even according to the constant and uniform judgment of mankind, has an infinite value.

It is no objection to say that the real being to which the rational subject adheres is finite, because he does not adhere to it without first adhering to infinite ideal being, which measures and determines the amount of adhesion due to the real.

1423. It is true that if the real being were itself infinite, the moral good would be infinite in two ways: first, with respect to the infinite dignity of the norm which is reverenced above all finite things; and secondly, with

respect to the real object. But although in this case morality is infinitely greater than in the other, because it acquires a value infinitely infinite; yet, even in the other case, there is an infinity of value; because, as we have seen, infinity is an ontological property, which cannot be lost in part only, but is either lost altogether, or remains altogether, inasmuch as infinity is such by its nature itself, and not by the addition of quantities.

ARTICLE X.

Reflection considered as an act of the Practical Reason.

1424. To recognise practically what was previously known theoretically, is the proper act of the practical reason, in which morality consists. The first act of morality, therefore, is performed through reflection. But reflection is twofold, *abstracting* and *integrating*, to which may be added a third function, that of simply *recognising* what one knows, without exercising either abstraction or integration upon it.

Hence the practical reason also must have three functions: 1.° Voluntary recognition of what one knows; 2.° Recognition with abstraction, that is, with division and separation, in other words, recognition of only a part of what one knows; 3.° Recognition with integration.

1425. If the practical reason recognises a known being simply for what it is in theoretic cognition, it performs its natural act, it unites itself to the term determined for it by its own essence, by its essential inclination: its act is good.

If, on the contrary, instead of simply recognising the whole of its term, it chooses to abstract from some part of it and to adhere only to another part, it does not follow the totality of its term, and hence it is vicious and its act evil. Hence in every immoral act there is always an arbitrary and unnatural abstraction. How man may be seduced into acting in opposition to the essence of his rational principle,

which is himself, has been shown by us in another work.*

1426. Moreover, by restricting and confining its attention and activity to a part of the object known, the practical reason deprives itself of part of its light and, so far, blinds itself. In every vice, therefore, and in every vicious act there is some ignorance and some blindness, whence proceed also those erroneous consciences of which it is afterwards so difficult for a man to rid himself, or even to have advertence.†

1427. With regard to integrating reflection considered as a function of the practical reason, we must observe that it performs a most noble part in the perfecting of man, because it lifts him up to God, by which means the moral order receives its last perfection, and the practical reason reaches its ultimate divine term, which, as the beginning and end of things and as the *Essential Being*, completes the order of known being. Then at last the practical reason has for its term the whole of being, not only in its ideal form, but also in its real form, although with a negative cognition. Thus religion is the crown of morality; and just as a morality hostile to religion is not morality, but the highest impiety, so morality without religion is like a house built without a roof, the roof remaining merely in the architect's design.

* *Theodicy*, nos. 396-410.
† *Treatise on the Moral Conscience*, nos. 406-458.

CHAPTER XIV.

SPECIAL ONTOLOGICAL LAWS OF THE PRACTICAL REASON. FIRST SPECIAL LAW: OBJECTIVITY.

1428. We come now to the special ontological laws of the practical reason. The first is that of *objectivity*.

We have seen that, according to the law of objectivity, the reason, 1.°, does not modify its term; 2.°, apprehends not the action of this term, but the term itself; 3.°, apprehends this term, without at the same time apprehending its own self, and terminates with its act in this term and outside of itself. These three qualities of the rational action must be found in the theoretic reason no less than in the practical, because the one is reason no less than the other. But just as such laws are necessary to the theoretic reason, which is constituted by them what it is (Article II, § I), and are therefore essential laws; so, with respect to the practical reason, which is subject to agents foreign to its object, they do not constitute its essence, but its perfection, its proper good, and therefore are not, in this sense, necessary, but becoming. They have a *moral*, not a *physical* necessity.

1429. The *moral law of* the practical reason, therefore, being the same as the *essential* law of the theoretic reason, it follows:

1.° That as it is an essential law of the theoretic reason not to modify its term, so the practical reason must abstain from so much as attempting to modify it, to alter it or make it different from what it is, because this would be deviating from the law of the rational principle, would be acting irrationally. Now it was on this account that we distin-

guished a faculty of *error* and of *vice*, different from the faculty of knowing, because the activity of the practical reason, by viciously altering the measure and worth of beings, opposes itself to knowledge instead of producing a knowledge;

2.° As it is an essential law of reason to apprehend being, and not to receive from being any action entering into and modifying the apprehending subject; so it must be the law of the rational principle to consider the value of beings in itself, independently of the accidental and real action which they exercise on the rational subject. That value must, therefore, be measured by ideal being and not by considerations of subjective advantage or disadvantage, and be estimated according to the measure which they receive from comparison with ideal being. The *real* action, therefore, which a being exercises on us must not induce our practical reason to estimate it at a different value from that which it has in itself as considered with respect to and in ideal being. Indeed, it is one thing to act in consequence of the *real action* performed in us by a being, or rather, by an agent, and another thing to act in view of the true measure of that being (in which measure, of course, are included its activity and fitness to act in others as well as in us) discovered by comparison with the essence of being intuited by the mind in universal-ideal being. To act according to this measure is to act *rationally* and, hence, *morally;* to act from the mere impulse of the real action done in us, is to abandon the law of reason, to follow that of blind, or merely sensible real being.* The practical reason, then, must be guided in conformity with the *object* and not with the subject;

1430. 3.° As it is an essential law of reason to apprehend being without apprehending itself, in so far as apprehending; so the practical reason, in order to act rationally, must follow being, its term, and wholly forget itself (the subject), except in so far as it might be included (objectified) in being, the object. Substantially, this comes to the same

* *Theodicy*, nos. 384-415.

as the preceding law, which lays down that the practical reason must act according to the object; but it shows besides why a virtuous man cares little or nothing about himself, and whence originates the charming *simplicity* of the just—that most noble gift by which they do good, without ever turning their eye to subjective stimuli. Here is also revealed the origin of the virtues of *generosity*, *magnanimity* and *self-sacrifice*.

CHAPTER XV.

ON THE SYNTHESISM OF THE PRACTICAL REASON.—TWO-FOLD NATURE OF THE MORAL GOOD, CONSISTING IN THIS, THAT IT IS AT ONCE ONTOLOGICAL AND PSYCHOLOGICAL.

1431. We come now to the law of the synthesism of reason. What consequence does this law bring about in the practical reason?

This consequence, that just as the rational principle has a duality inasmuch as it goes beyond itself, fixes itself and, as it were, dwells in a thing different from and opposed to itself as subject, namely, in the object; so, if the practical reason acts according to the proper law of reason, it is not only ordered and satisfied in itself (pyschologico-moral good), but it likewise gives to the being which is its object what is due to it, and thus the *inherent claim which that being has to recognition* [*l'esigenza dell' ente*] is satisfied (ontologico-moral good).

On the other hand, if the practical reason deviates from the proper law of reason, two evils ensue: 1.° Disorder in the rational subject himself, in not uniting himself to his term and not displaying his practical activity toward it in the way that his nature demands (psychologico-moral evil); and 2.° Disorder between the rational subject and being, in not observing the relation which, by the nature of things, ought to exist between the two (ontologico-moral evil).

1432. Hence it is, that moral evil cannot be fully repaired by the mere correcting of the disorder caused in the practical activity of the rational subject, since this

would be merely restoring the *psychological order*. Fully to repair the evil, satisfaction must further be made to the being whose inherent claim to recognition has been violated, and thereby the *ontological order* restored. This accounts for the origin of punishing and avenging justice, and of penal satisfaction. If, then, there is any being who embraces in himself the whole ontological order, and therefore watches over its preservation (and this being is God), his justice must plainly demand penal satisfaction for the moral evil in behalf of the being that has been outraged.

The same must be said of well-doing. Over and above the good psychological effect which flows from moral good into the lower order of the subject that produces it, there must follow likewise an ontological reward.

1433. But this reward is various according to the *particular being* whose claim to respect has been practically recognised.

If the upright man has done that good which regards himself (considering himself objectively), he will have, as ontological good, an increased love and respect for himself (the testimony of conscience, which is a different thing from the feeling of psychologico-moral harmony).

If the upright man has done that good which regards his fellow men, the ontological reward to which he is entitled consists in the love and gratitude of these; and, if this is denied him, the Supreme Being who presides over the ontological order must compensate him, even as he must visit with condign punishment those who are guilty of the unjust denial.

If, finally, the upright man has done that good which regards God, God reserves for him rewards worthy of Himself and of the moral virtue which has been exercised toward Him.

The same is true, *mutatis mutandis*, with respect to evil.

But here we must consider more carefully how it is that moral good and evil are always of a twofold nature, that is, are at once psychological and ontological; and, in order to do so, we must compare this good which belongs to the

activity of the rational principle, with the good that belongs to the activity of the sensitive principle.

The term of the sensitive principle is not divided from it, but has with it a union or relation of *reciprocal activity.* The term of the rational principle, on the contrary, is essentially opposed to it, and between the two there is no reciprocal activity, inasmuch as they are united only by an *intuitive relation.* Hence all the evil of the sensitive principle is resolvable into what it produces to itself. The evil which it produces in other beings does not affect itself, both, because its term, the material extended, is not, as we have said, susceptible of good and evil, and because what is disjoined from it is not its term. Hence, if a dog, for example, bites a man, we do not say that the dog himself receives into him any evil from this action, and if we call him a bad dog, the appellation refers only to the evil produced by him, and, in fact, is more a metaphor than anything else. On the contrary, the rational subject, having for his term an object distinct from himself, whenever he does an injury, for example, to a human being, he acts against the law imposed upon him by the term of his activity, viz., being, and this on account of the said laws of objectivity and synthesism, in virtue of which this term is present to it. Thus the sensitive principle is subject to evil for one reason only, that is to say, because its activity may be found disordered in its natural instinct; whereas the rational subject is the cause of evil in two ways: 1.° On account of the disorder which he produces in the ontological order by altering the natural relations between beings, and thus attempting, so far as in him lies, to destroy universal being which has this order inherent in its nature; 2.° On account of the disorder which arises within himself from not adhering to his natural term in accordance with the law of his constitution. Hence we see that the moral necessity is at once objective and subjective.*

* *Philosophy of Right*, vol. i. *Moral System*, sec. i, v-vii.

CHAPTER XVI.

SECOND SPECIAL ONTOLOGICAL LAW OF THE PRACTICAL REASON: ITS OBJECT IS THE POSSIBLE.

1434. Let us now apply the second law of reason, which says: "The term of thought is the possible," to the practical reason. This will give us at once two most noble consequences. The first is, that "The practical reason has for its term the essence of beings in relation to its realisation;" the second, "That the practical reason has for its special law harmony in the object to which it adheres." These consequences we will endeavour to explain in the two following articles.

ARTICLE I.

The Practical Reason has for its Term the essence of beings in relation to its Realisation.

1435. In speaking of the law of perception, we have said that the practical reason must adhere to real being proportionately to the measure of its beingness, and that such measure is determined by universal-ideal being.

This measure consists in the *specific idea* of the particular being of which there is question, and this idea always consists in ideal being considered as manifesting that real being.

There are, therefore, three things: 1.° Universal-ideal being, the first and absolute measure, the measure of all the measures of real beings; 2.° The specific idea, the proximate measure of the real being of which there is question; 3.° The real being measured. Accordingly, the first law lies in the measure that measures all the others; which is equivalent to saying, that the practical reason must act according to

what is pointed out by this common measurer, must accept the measure which it assigns. The second law lies in the proximate measure; which is equivalent to saying, that the practical reason, once supplied with this measure by the prime measurer, must hold it as the norm of its estimation of and adhesion to the said real being. Above that real being, therefore, there are these two norms of the practical reason; and this shows that the moral order comes to the practical reason from those laws which prescribe to it how it must conduct itself towards each real being. The ultimate ground of moral estimation, then, is the idea, and a real being is not entitled to such estimation except in so far as the idea prescribes it.

Now the idea contains the essence of the being. Hence the recognition yielded by the practical reason terminates in that essence, and the real being is valued, not in, and by reason of, itself, but in and by reason of its essence. But the essence of a being, so far as contingent beings are concerned, is ideal and, when considered in reference to its realisation, it takes the name of *possible*. Therefore the ultimate term proper to the practical reason consists in the possible essence of the thing in relation to its realisation.

1436. From this we can see why it is a moral act, not only to respect a real being in proportion to the measure of its ideal essence, but also to tend to realise that essence. In fact, if the practical reason has for its object the realisation of essence, it follows, that if this realisation has not already taken place, or has taken place only imperfectly, it will tend to produce it, and to do so in the most complete and perfect way. If, on the other hand, it is already produced, the practical reason will tend to adhere to the real being perfectly realised.

Hence the two kinds of moral act: 1.° Adhesion to existent real beings (special justice); 2.° Realisation of ideal beings (beneficence, charity); and this second is subdivided into two—the act of *producing* and the act of *perfecting*.*

* On the distinction between the moral act of producing and that of perfecting, see *Principles of Moral Science*, chap. vii, art. iv-vi.

From this same doctrine springs the law of the *complete realisation of species*, or of *excluded equality*, which the Creator follows in the formation and government of the world.*

1437. We have spoken only of contingent beings. But the same mode of reasoning holds good in the case of the Supreme Necessary and Absolute Being. For, although the Supreme Being has subsistence and reality in His essence, His essence is no less, on this account, that which manifests His subsistence and reality; or, to put the thing still more clearly, the subsistence of the Supreme Being, in so far as it makes itself known by its own light, is the *law* imposed on the practical reason, and, in so far as it lives complete in itself, is the real *object* of the same practical reason.

ARTICLE II.

It is a Law of the Practical Reason to adhere to a Harmonic Term.

1438. The essence which does not in itself include subsistence is called possible relatively to its realisation.

Logically possible is whatever does not involve contradiction. Hence we said that being, the object of reason, is free from all contradiction, self-concordant, fully harmonic.

Hence the practical reason, being also itself reason, must, in order to act according to its nature, have a harmonic term, free from contradiction.

1439. On the contrary, a vicious man has always, as the term of his action, a contradiction. He is always striving to accomplish the impossible.

In truth, it is impossible to destroy the intrinsic order of universal being, to make being, considered according to its essence, different from what it is; because essences are immutable. Now when a man, instead of recognising a conceived being in accordance with its true measure,

* *Theodicy*, nos. 617-641.

chooses to recognise it according to an arbitrary measure, he represents to himself the essence of that being with an altered measure, and therefore as of greater or of less value than it truly is. Consequently, he represents to himself the false as the object of his activity. Still he does not present it *as* false, but as true. I say *as true*, because no one can fully and absolutely desire to deceive himself, and every vicious man necessarily tries to persuade himself that the good which he desires is true good. Could he be convinced that it is not even *here and now* true good, he would never pursue it, in other words, he would not abandon true good for what he would then know not to be a good. Of course, he may with his theoretic reason know that he is mistaken, but he does not recognise this with his practical reason. He will say to himself that the good which seduces him is not good generally, and that it will bring in its train a greater evil; but at the same time he will persuade himself that it is good for him at present, abstracting with his thought from the future, from consequences and from a thousand other considerations; for, as we have said, it is through abstraction that the practical reason deviates from the path prescribed to it by its natural laws. If, therefore, practically and in the act of operating, he will have it that what is evil shall be good, he attempts by this activity to pervert the nature of and destroy truth, to cause what is in one mode to be in another, to change the order of being.

Now, if this were possible, being would fall into contradiction with itself, inasmuch as it would be one thing and have one measure for the theoretic reason, and be another thing and have another measure for the practical reason. Hence the practical reason, when attempting by vicious action to place being in contradiction with itself, attempts the impossible.

1440. Herein we see the origin of the incessant struggle and implacable conflict which rages in the bosom of every vicious man, as well as of the peace and harmony with himself which the righteous man enjoys.*

* See *Moral System*, prefixed to the *Philosophy of Right*, sec. i, ii.

CHAPTER XVII.

THIRD SPECIAL ONTOLOGICAL LAW OF THE PRACTICAL REASON: IT HAS AS ITS TERM AN INTELLIGENT SUBSTANCE.

1441. The four following laws of reason merely define what cannot constitute its term, and with respect to the practical reason have the same negative import. They show that the practical reason has not found its proper term so long as what it seeks to adhere to is a thing wanting either in the first act, or in unity, or in duration, or in determinateness. This means that the term of the practical reason must be some substance. Hence what is merely accident cannot constitute a proper term for the practical reason, which must always refer what is accidental to what is substantial. This we have seen when speaking of the law of prudence.

1442. Moreover, inasmuch as that which is corporeal has no unity proper to itself, but borrows its unity from the sentient principle (in which alone it has continuity), it follows that the mere corporeal cannot be a true term for the practical reason.

In the same way, the purely animal-sentient principle cannot constitute a proper final term of the practical reason, since it is not a complete being, but only a certain rudiment of being, on the way to become a being. Besides, the practical reason, as we have seen, must always extend with its action to the infinite, this being what renders it moral (1422). But the animal principle contains nothing infinite. Therefore this principle cannot in any way be a proper ultimate term of the practical reason.

The intelligent being, on the contrary, through having its seat in the infinite, in ideal being, in the essence of being—in so far as it fixes itself on and rests in it—and thus being naturally ordered in view of it, partakes of the infinite dignity of the same. Consequently it has the nature of *end*, and hence of a proper term for the practical reason.

1443. But since, even among real intelligent beings, there is an order, and the finite real is only a production of the Infinite which creates it; therefore the practical reason is naturally bound to adhere to the finite intelligent being in such a manner as to refer it to its principle, to God the Creator, in Whom alone, as in its ultimate, complete and absolute term, it finds rest.

These observations must suffice as regards the ontological laws of the rational principle. Let us now pass on to the second class, that is, to the psychological laws.

CHAPTER XVIII.

ON THE PSYCHOLOGICAL LAWS OF THE RATIONAL PRINCIPLE, CORRESPONDING TO THE GENERAL ONTOLOGICAL LAWS.

1444. Although the term is what rouses the activity of the principle to which it is conjoined, nevertheless, when this union has taken place, the principle has likewise an activity of its own. In man's natural life, the term of the rational principle is twofold, viz., ideal being and the finite real (the world). This twofold term must necessarily arouse in the rational principle a twofold activity. And as this twofold activity must, to a great extent, be determined in its mode of operating by the nature of the principle itself, or the soul, so the psychological laws must be divided into two classes—those which correspond to the ontological laws, and those which correspond to the cosmological.

But of the cosmological laws we have not yet begun to speak. We shall, therefore, at present limit ourselves to explaining the psychological laws which correspond to the ontological ones, leaving the other class to be discussed later.

Nevertheless, we shall not be able to do this without, in some degree, touching upon cosmological laws. But what we shall say of these now will only be, as it were, an instalment of what we shall have to say afterwards when we come to treat them *ex professo*.

1445. The general ontological law which sums up all the others may be expressed thus: "The term of the rational principle is being." If, therefore, any condition essential to being were wanting, the term of the rational

principle would no longer exist. If, on the other hand, no essential condition of being is wanting, this principle, having thus its proper term, exercises its activity in it.

In order properly to apply this law to man, we were obliged to take note of the three essential conditions of being. Accordingly, we said,

1.° That being has three forms and is complete in each of them, and that, therefore, being may be given to a subject in its ideal form without being given to it in the other two;

2.° That being cannot be given in its real and moral forms without being given in its ideal form also; because ideal being is what manifests the *essence of being*, and being cannot be the object of thought in any form, if it lacks its own proper essence; *

3.° That inasmuch as being in its ideal form is essentially *object*, the rational principle which is informed by it can have no term except under the form of object.

1446. Hence we may infer:

1.° That the rational principle, in so far as naturally intellective, has only that activity which ideal being can impart to it;

2.° That this principle, even if it were entirely separate from the fundamental-animal feeling, would find rest in ideal being, its natural term;

3.° That it cannot move toward any other act, unless roused to do so by a new object.

In these propositions are contained the germs of the psychological laws which we purpose to explain. Let us begin by considering the last.

* Thus if anyone were to maintain that God can be seen without His essence being seen, he would be maintaining an absurdity.

CHAPTER XIX.

FIRST PSYCHOLOGICAL LAW: RATIONAL INERTIA.

1447. The last of the three propositions just stated means that, supposing the rational principle were not moved to action by any other object than ideal being, it would remain in a state of perpetual quiescence, with nothing more than the intuitive act which unites it to the term given it by nature.

1448. In fact, he who inquires into the subjective laws according to which the rational principle operates, may propose to himself the solution of two questions:

1.° According to what laws is the rational principle moved to its second acts?

2.° According to what laws does this principle, when moved, proceed in executing its movements?

1449. As to the first question, the reply must be that the rational principle is not moved to any second act unless some new object besides ideal being, something real, be given to it.

But since the real being in which thought terminates may be either finite or infinite, incomplete or complete; and since, when it is infinite and complete, its reality is absolutely identical with the essence seen in its idea, and is, therefore, itself and *per se* object; we must conclude, that the activity that would be roused in the rational principle by the infinite real if this were to communicate itself to it, would be in a strict sense *ontological*. Hence one might wish to know what would be the subjective-ontological laws of the rational principle in this case. Now it is evident that the activity roused in the rational principle would be

the greatest possible, while at the same time it would be perfectly simple, that is, would all resolve itself into an act simply and completely resting in its term. Consequently, this act once completed, there would be no other movement except that which might arise from the passage between the ideal and the real—an act of delight in seeing that that real filled the whole of the ideal, and that the ideal expressed and, so to speak, illuminated the whole of that real. To this incessant passage of attention and contemplation the rational principle might be moved by what it would, in the real itself, find identical with and distinct from the ideal.*

1450. But leaving out of view the communication of the infinite real being, any communication of the finite real can do no more than rouse a cosmological activity, and so be the source of laws merely cosmological, not ontological. Given that this activity has been roused, it is certain that the *mode* in which the rational principle acts draws its character from ideal being, and is, therefore, ontological; and this shows that there can be subjective-ontological laws, although with respect to ideal being taken by itself alone, or to infinite real being, there can be only that simple act which terminates in it and there rests.

1451. This need, which the rational principle has of new objects in order to perform new acts, is what we call the *psychological law of inertia*, a law by virtue of which it is impossible for that principle to move from a state of quiescence to that of action unless there be an object to attract it and set it in motion; although when it is once in motion it may do various things in virtue of another law, that of spontaneity.†

* *Theodicy*, nos. 694-698. Here it need not be objected that God, although not going beyond Himself, does things which are distinct from Him; because it is always true that the Creator touches with His creative act each created thing, in so far as it is a term of creation; whereas we are speaking of the supposition that the soul sees God without at the same time having any connection or contact with created things.

† In the *Anthropology* (nos. 439. 440, 443-448) we have spoken of the two laws of *inertia* and *spontaneity*, which govern the animal. These occur also in the rational being, with the addition of another, liberty.

CHAPTER XX.

RECONCILIATION OF PSYCHOLOGICAL INERTIA WITH THE VARIOUS OPERATIONS OF THE SOUL BY MEANS OF THE LAW OF SPONTANEITY.

ARTICLE I.

How the Spontaneity of the Rational Principle is roused.

1452. If, therefore, the human soul or rational principle moves only when a term is furnished to it, how are we to account for the wonderful activity which it displays in such a variety of operations that lead it on to further and further developments without end? Does it not seem as if there were no alternative between the object being given to it and not being given, in the first of which cases it would merely, by a perfectly simple act, unite itself to the object and rest there, and in the second would not act at all?

I reply: This is exactly what would happen if the soul, as principle, had not an activity of its own. It is true that it would not have such activity unless the object were given to it; but the object being once given, the activity exists, and has its own special laws, those *psychological* laws of which we are in search.

First of all, let us bear in mind that, as we have already seen, the union of the rational subject with the object takes place in two ways, the one *speculative* or *theoretic*, the other *practical*. Now, the merely *speculative* or *theoretic* union is the first act of union, which is determined by the presence of the object, and is, therefore *ontological*. The practical

union, on the other hand, is due to the activity of the subject himself, and is, therefore, a *psychological union.**

1453. Hence we have seen that the ontological laws of the theoretic reason are physically necessary, inasmuch as they come from the object and from the Creative Power which posits the soul as intuiting the object, and therefore are not derived from the rational activity of the soul, which, on the contrary, is created by them.

On the other hand, when we inquired whether the practical reason had any ontological laws, and, if so, what they were, we found none that were physically necessary;† all of them were only morally necessary. What do we mean by ontological laws morally necessary? We mean laws which are such as to determine, not the physical, but merely the moral action of the practical reason, in other words, not what it actually does, but what it *ought* to do in order to be perfect.

The *practical reason*, therefore, has two kinds of laws, those according to which its own nature prompts it to act—the *psychological*—and those according to which it is bound to act in order to be perfect—the *ontological* and *moral*. This second kind of laws we have already expounded; we shall now endeavour to expound the first.

1454. But since the practical reason is only a kind of continuation of the theoretic reason, even as second acts are a kind of continuation of the first act, so the practical reason never acts alone, but always in conjunction with the theoretic, from which, as from its origin, it sets out. Hence it happens that in the operation of the practical reason we find the laws of the theoretic reason already in force;

* We must, nevertheless, observe hat even this *psychological union* is, n part, determined by the knowledge of the object as by a stimulus, and ience it is that the diversity of objects auses the soul to be moved to greater r less activity. And in general the ollowing principle, of which we shall lsewhere speak, may be laid down as ue, namely, that certain complex obcts, having an order among their elements, excite in the soul a complex and manifold activity, that is, an activity resulting from several acts having an order among themselves; with this peculiarity, however, that, whereas in the complex object the intrinsic order is simultaneous, in the activity of the soul the order unfolds itself in successive acts.

† Physically necessary is what proceeds from the *nature* (φύσις) of any being.

although it does not follow from this that the two sets of laws are the same. On the contrary, we must be very careful not to confound these two most distinct kinds of laws.

1455. *Psychological activity* and *spontaneity* are, therefore, perfectly reconcilable with *psychological inertia*, since the latter consists in the soul being incapable of acting without an object, and the former consists in the soul uniting itself in different degrees and modes to the object after this has been given to it.

ARTICLE II.

Description of the Psychological Development.

1456. In order, however, that the reader may have this harmony more clearly before his mind, it will not be useless to sum up here briefly all that we have said in various places concerning man's *psychological development.* It proceeds by the following steps or modes of action on the part of the spirit, of all of which we venture to think that an adequate explanation has been given.

1.° The rational principle does not move unless an object be given to it to unite itself with;

2.° If this object is infinite ideal being only, the rational principle rests in it, and then its action (intuition) is, like the object, perfectly simple. It cannot move any further, its movement having reached its complete term;

3.° If the object is a real, given in feeling, this promotes perception, in which there is multiplicity, inasmuch as it includes at once, (*a*) the infinite ideal, (*b*) the ideal as measuring the essence of the real (concept of the real, measure of the real), (*c*) the affirmation of the real, that is, of the realisation of the concept. All these are, so to speak, organically united;

4.° If for any cause the *affirmation* of the real, or the memory of it, ceases, there remains in the mind the concept of the thing, upheld by some real vestige of the feeling, which vestige takes the place of the thing;

5.° But a real perceived by our *theoretic reason* may become an object of our wills (psychological activity), not merely as *conceived*, but as *real*. Thus the soul is united with the object in two different ways.

In fact, the *will* sometimes takes delight simply in actually knowing a thing (delight of contemplation), and then it is satisfied with having the object present in the *concept* of the theoretic reason, and with the contemplation of it, which is an act of the practical reason.*

6.° But sometimes the will is not satisfied with merely contemplating the known object; it desires to have actual fruition of it, to possess it as real, as the term of feeling, and not simply of cognition.

And with regard to this real union, there may be two kinds of volitions, the *affective* and the *appreciative*.† In the *merely affective volitions*, the rational principle limits itself to seconding the instinct, and therefore holds itself in a negative attitude with respect to the term of the instinct, conceiving it indeed in being, but not distinctly appreciating it as good. In *appreciative volitions*, on the contrary, the act of appreciation comes in before everything else.

1457. Now the *appreciative volition* (we shall confine ourselves to this at present), which longs for the real as the term of feeling, is different according to the different sensories, and the different ways in which they unite with their term. Hence,

(*a*) In the case of the sight, in order that there may be appreciative volition, it is enough that the real be visible to the eye. The *visive perception* of it will be the object of the longing. Thus, it is enough to look at a fine peach hanging perfectly ripe on a tree, in order to feel a wish for it.

* This *contemplation* was considered by the Schoolmen as an act of the theoretic reason; but since it is delightful, voluntary, and loving, it ought in my opinion to be assigned to the practical reason. It is, indeed, the practical act that approaches most closely to the act of the theoretic reason, and is a reinforcement of it; and it is precisely in this act of practical reason, reinforcing and completing the act of the theoretic, that I would place beatitude; not in an act of mere theoretic reason without any intervention of the human will.

† *Anthropology*, 612-635.

(*b*) In the case of the touch, it will not be enough that the real be at a certain distance at which it can be seen; it must be within reach of the hand. For example, the child in its mother's arms, seeing that fine peach hanging on the tree, will stretch forth its little hands toward it, and give other unmistakable signs of its desire to have that beautiful fruit plucked so that it may be able to handle it at pleasure.

(*c*) In the case of the taste or the alimentary sense, there will be a longing for eating the real thing itself. The child will wish to put that fruit into its mouth and eat it.

The same must be said of every other sensory. In general, therefore, there is a desire that the term longed for should be united to the sensory to which it belongs, in the particular way which that sensory demands.

7.° Hence it is, that the real conceived by the theoretic reason, whenever the will longs for it as the real term of a feeling, receives the character of *end* with respect to the will, whose activity is, therefore, at once roused to seek the *means* for attaining that end. These means may be found by a play of the *merely affective volitions*, or else the *practical reason* may set itself in motion for finding them by appreciative and calculating volitions.

8.° In this last case, the practical reason moves the *theoretic reason* to find the *means* in question.

1458. At the same time we must not conclude from this, that the abstract concepts of *end* and *means* are hereby formed. There is as yet nothing really abstract in the theoretic reason. It acts in accordance with the relations of the several beings without abstracting these relations from them. It sees those relations *in*, and not *separately from* them, although with acts which have already a complex and manifold term, so that its parts are, as it were, organs of a single understood whole, existing in and through that whole.

This manner of acting in view of means and ends without yet abstractly knowing them as such, does not belong to *abstract thought*, but to complex or *manifold thought*; for

in the object of thought there may be *multiplicity* without abstraction. Thus we have seen that in the object of perception there are three elements distinguishable; and yet it is a single operation, and its object is one, though organic.

1459. 9.° But this relation of means and end is already a link between ideas and perceptions. Other links subsequently manifest themselves, which associate them in a thousand forms, and out of many forms make a single thought; and the instrument which imparts new activity to thought is the association and spontaneity of phantasms. In fact, we have seen that it is a law of the rational principle to unite the idea to every feeling. Hence the phantasms excite thought. Now it is a peculiarity of the phantasy that it has a kind of spontaneous motion; whence it happens, that, on one phantasm being excited, others and yet others make their appearance.* As a consequence, thoughts are likewise made to succeed each other by this stimulus.

1460. Again, the phantasy is subject to the law of habit, and this law is imposed on it partly even by the thoughts. For as the phantasms move the thoughts corresponding to them, so the thoughts, in turn, move the phantasms. Now thoughts are bound together by their logical *nexus*, and hence the corresponding phantasms also are wont to exhibit themselves in a series which might be called rational. Indeed, the various series of reasonings which the mind has once gone through, have the effect of binding together and producing the corresponding series of phantasms. Hence, subsequently, those reasoned series of phantasms which are bound together in conformity with the different reasonings, are habitually roused in us as soon as the necessary impulse is given to our internal sense, and along with them there return the corresponding reasonings. Thus the habit to which the phantasy is subject is communicated to the faculty of thought which is linked to it; and this is what we call *reasoning phantasy*, or *reasoning*

* *Anthropology*, nos. 416-494.

habit, of which we make use to explain the phenomena of sleep, of reveries, &c. And here it must be remembered that this *reasoning habit* [ἕξις μετὰ λόγου] which begins at this stage of man's intellective development, grows and amplifies much more with the other grades of the development of thought which we are about to describe.

10.° The association of perceptions and ideas causes one real to become a *sign* of another real, and one perception of another perception. In this way a language naturally begins to be formed. Moreover, nature, instinct, teaches man to use this association of perceptions in dealing with his fellows, because, when he wishes to reach an end, he sometimes requires to let these know the fact, the knowledge thus imparted being a *means* of attaining that end. Again, the wisdom of the Creator has furnished man, among other modes of communicating his wants and volitions to his fellows, with a means most suitable for that purpose, I mean with the power of producing articulate sounds, and has given him the *instinct of using that power* simply as a physical consequence of his feelings and thoughts. Hence we find that man, when animated by some more or less strong sentiment, instinctively utters sounds even if he is alone, and this because the rapid motion of his tongue, the expulsion of air from the lungs, and the fitting conformation of the throat, are the effect of his internal feeling, even independently of the aptitude these sounds have to express a meaning, which aptitude, however, is discovered very soon afterwards. This is already a great step forward in man's intellective development; but abstraction properly so called has not yet any part in it.

11.° Now comes the question: Are these sounds and the other signs that man employs to let others know his own needs, feelings and volitions, proper, or common names? I answer:

Their *nature* is that of common names, because they express concepts (otherwise they would be instinctive sounds, and not imposed signs); but the *use* they are put to at first is that of proper names, because they express the

concepts as still bound up with feeling, that is, they express the perceptions * of which those concepts form part.

They begin by being proper names, because they begin in the act in which they are imposed upon the objects of perception, each of which objects is in its nature singular; but as every perception has the common in it, that is, the concept which is essentially common, they are very soon used as common, *i.e.*, as soon as the concept bound up with the object of perception, and so particularised, is loosed from that extrinsic bond.

In order to see by what mode of progression, and to what point, man, or rather men living in society, may advance in the formation of language, it is necessary to consider carefully the nature of perception, that first generator of names.

The elements of perception are three: 1.° The idea (unlimited ideal being; 2.° The concept (ideal being limited by the relation which sensitive perception has to it); 3.° The act of the spirit affirming the subsistence, that is, the realisation of the concept.

At the very first, therefore, the imposed name marks this triple object of the perception; but very soon afterwards the spirit abandons the *subsistence*, having no need for it, and retains only the concept intuited in the idea. The name does not, on this account, change its nature; but it is henceforth used as common.

1461. 12.° But what is the nature of the *concept* acquired in perception?—At the outset, the intellective perception takes place on occasion of sensations and sensitive perceptions. Now the different senses that perceive the same real naturally split it up, so to speak, into many reals, because they present its diverse sensible qualities by separate perceptions. Hence man may connect different sounds with this same real, one sound to indicate it as a coloured object, another to indicate it as an object savoury to the palate, &c.† This is not yet pure abstraction. Each of those

* *New Essay*, vol. i, nos. 134-210.

† This fact connected with the sense misled the Aristotelians, who attributed to the sense a kind of abstraction. St. Thomas makes a very happy use of this fact of the sense to show that abstraction does not belong to the object, but to a *psychological law*. He says: "*Et*

sounds simply indicates a real substance, as given by the corresponding sense, and is a *qualificated substantive* noun; and even when man discovers the identity of the individual

hoc possumus videre per simile in sensu. Visus enim videt colorem pomi sine ejus odore. Si ergo quæratur, ubi sit color, qui videtur sine odore, manifestum est quod color qui videtur non est nisi in pomo. Sed quod sit sine odore perceptus, hoc accidit ei ex parte visus; in quantum in visu est similitudo coloris, et non odoris. Similiter humanitas quæ intelligitur non est nisi in hoc vel in illo homine; sed quod humanitas apprehendatur sine individualibus conditionibus, quod est ipsum abstrahi, ad QUOD SEQUITUR INTENTIO UNIVERSALITATIS, *accidit humanitati secundum quod percipitur ab intellectu, in quo est* SIMILITUDO NATURÆ SPECIEI, *et non individuantium principiorum*" (*Sum. Theol.*, Pt. I, q. lxxxv, art. ii, ad 2m). Now, here there are several things to be observed. As an agent acting in two patients differently disposed produces two different passions, so a body, when acting upon different sensitive organs, produces different passions. One organ cannot receive the action suitable to another organ; for example, the organ of sight cannot receive the action that produces odour, but only that which produces colour. Sight is limited to colour, but as to smell and other sensations, it is altogether devoid of them. Here we have not yet what the Schoolmen called *intentio universalitatis*, because real odour is as peculiar to the organ of smell as colour is to the eye, and body to any of the sensories. In the sense there is, therefore, the particular, and this may be only *partial*, as, for example, the effect of smell is partial with respect to all the other effects which a body may produce in the various sensories. There is, therefore, nothing universal in the sense; there is, on the contrary, something exclusive or negative, because the sensation of colour excludes that of smell and the others belonging to the other sensories. But the *universal* does not lie in this exclusiveness and negativeness; it is something which in its possibility extends to and embraces an infinite number of particulars. Neither is it possible for the universal to be partial, because a part can be universalized as well as a whole, provided it be considered simply as possible (ideal). Thus I can universalize an odour or a sound, no less than a body furnished with all its sensible qualities without exception: the idea of such a body is certainly universal. Since, therefore, the *intentio universalitatis* lies in the possible, the mind alone can reach it, not the sense; because the sense does not feel the possible, but only the real. *Universalization*, therefore, as well as the *abstraction* which follows it, are operations of the mind, different from one another, though they are sometimes confounded. Now the mind could not universalize, unless by adding the possible to the things perceived by the sense, and the *possible* is *ideal being*, the idea. Hence the mind, far from deriving this idea from the senses, must add this very idea to what they present, if it is to know it at all.

The illusion of the Aristotelians arose from their not observing that the sense, when stripped of all that is added to it by the understanding, feels only itself modified, and, in its own modification, the immediate (extra-subjective) modifier; whereas the intelligent spirit perceives a being, an object opposed to it as subject. Hence the modifications of the sense have a limit imposed upon them simply by the limitation of the sentient subject as well as of the action exercised in it. But the object, the being, is what it is, and cannot be given to the understanding except in its entirety; hence, when we limit it by abstraction, we must do so by an act of our own, whereby we restrict our attention, without at the same time ceasing to have the whole object before our mind. The particular sensory, on the contrary, has only its own passion before it, *e.g.*, smell; the other passions do not belong to it. To the intellect belongs the whole of the being, and it is only the subjective attention that is limited by a special act, in order that it may consider a part of that being more closely. Were the case otherwise, man would take the abstract as the whole being.

being which affects his different senses, he does not yet abstract, on the contrary, he synthesises. Nevertheless this is an important step in the progress of the human spirit.

1462. 13.° But it sometimes happens, that two or more reals, different and differently perceived, cause in man a similar pleasure or a similar pain. In the first case, he will express his joy, and in the second, his pain, by similar movements. His fellows, therefore, will read in his countenance and in his gestures the pleasure or the pain which he feels. He may also express such feelings by spontaneous and instinctive ejaculations and gestures. These, properly speaking, will express a reality, namely, his pleasant or painful feeling. But they will soon associate themselves with the real objects which are their cause and form, according to the *dictum* of the Schools that *sensibile in actu est sensus in actu.* Let us take the example of a mother who wishes to keep her child from touching certain hurtful objects. In order to make it understand that these objects are hurtful, she will make the gestures and utter the sounds that express pain, fear, and similar feelings. And she will use these same signs to make it understand that it must keep away from the fire, from a razor, from a pool of water, from a precipice, &c.; because, since the feeling produced by all these objects is the same, it is natural that she should always use the same signs, and all the more natural when we consider that there is a law in virtue of which both "The animal and man take the easiest way of doing what they do;" and it is easier to repeat the same sign than to find new ones. Thus by degrees a sound will come to be established as the common name of all hurtful objects. If, on the other hand, the same mother wishes to encourage her child to enjoy pleasant objects, to eat fruit or sweets, to play, &c., she will use such signs as express joy, and by repeating the same in a large number of different circumstances, and for very different real objects, she will at last succeed in establishing a *common* name for all objects that are pleasant or useful.*

* *Restoration*, &c., Bk. II, chap. xxxi-xxxiii.

The names imposed by this mother would, therefore, signify, "What causes pain, grief," and "What causes pleasure, joy." Hence they would express beings, but beings characterised by the effects produced by them in feeling. They would, therefore, be most extensive *common names*, because they would embrace innumerable classes of effects. Since, then, man has this faculty, there is nothing to prevent him, according to the needs of feeling, from inventing more restricted common names, determined not by pleasure or pain in general, but by one particular genus or one particular species of pleasures or pains, of satisfying or troublesome feelings. Thus, *good* and *bad*, *useful* and *useless*, *wholesome* and *unwholesome*, *&c.*, would be common nouns of this class. Such nouns are called by grammarians *substantivated adjectives*, but wrongly, because in the progress of human language man must find them before adjectives. Hence their proper philosophical designation would be *qualificated substantives*, because they express the concept of a substance determined by one or more species of its accidents.

According to the same law, it appears that the common name signifying at first the full species must be transferred to signify not only the more extensive genera, but also the less extensive, down to the very narrowest. Let us give an example. On seeing the green carpet with which a certain part of the earth is covered, man will be moved to call that green surface, the soil covered with grass, *meadow*, thus naming as with a proper name the object of his perception. Afterwards he will call every similar piece of green earth by the same name of *meadow*, and thus will already be using that term as common, because, the thought of the subsistence of the first real meadow being now abandoned, the concept as well as the term become common to every piece of grassy earth; hence by the word meadow he already designates the essence contained in his concept. It is true that in his first perception of the meadow he perceived other qualities besides the green colour, viz., its extent, its configuration, its level or undulating surface, &c.; but these qualities did not strike him so vividly as the

green colour, and therefore, passing them over without giving them any denomination, he contented himself with naming the object perceived from its most striking quality, a *green thing*. Hence if this man, while not yet in possession of other words, should happen to see a green tapestry, and should wish to name it, he would not look for a new word, which would both cost him more labour, and be useless for his need, but would at once call it by the very same name of *meadow*, thereby widening the signification of this term, and making it mean generally "What is green."

Hence we may conclude that to think genera and species and to produce common names is natural to man, so that the first substantive names must have been, not pure substantives, but qualificated substantives. Of this the most ancient languages bear evident traces. Leibnitz had observed this, and it will not be amiss to add to the examples adduced by me in another work,* those instanced by this supreme philosopher, who flourished in Germany before that nation was visited by the caustic spirit of sophistry introduced later on by Kant, the son of his time and the corruptor of the true philosophic method. Here is what this great man writes:

"But I would add, as I have already observed, that proper names were originally appellative, that is general, as, for example, Brutus, Cæsar, Augustus, Capito, Lentulus, Piso, Cicero, Elba, Rhine, Ruhr, Leine, Ocker, Bucephalus, Alp, Brenner or Pyrenees. For it is known that the first Brutus received this name from his apparent stupidity; that Cæsar was the name of a child cut from its mother's womb; that Augustus was a term of veneration; that Capito meant big head, as also did Bucephalus; that Lentulus, Piso, Cicero were names originally given to persons who made their living by cultivating certain kinds of vegetables. I have already said what the river names Rhein, Ruhr, Leine, Ocker mean,† and it is well known

* *New Essay*, vol. i, nos. 138-155.

† He derives *Rhine*, *Rhône*, &c., from ῥέω, to flow; *Leine* from λύω, to melt of the snow; *Ocker* from *aha*, *auue*, *eau*,

that in Scandinavia all rivers are still called Elbe. Finally, the Alps mean mountains covered with snow, which is *album* (white); so likewise among the lower Saxons *brink* means height, and there is a *Brenner* between Germany and Italy, as there are *Pyrenees* between France and Spain. Thus I should venture to say that almost all words are, in their origin, general terms, since it very rarely happens that a name can, without a proper reason, be invented to designate an individual. It may, therefore, be said, that all names of individuals were originally names of species given to an individual as a mark of preëminence or otherwise, as the name *Bighead* would be given to that person who in a city had the largest head, or who enjoyed most consideration among those having large heads. And, in the same way, we now impose, sometimes a specific, sometimes a generic name by using a more general or vague term to designate more particular species, when their differences are of no importance to us: for example, the generic term *absynthium* suffices to designate all the species of that plant, although there are so many that one of the Bauhins filled a whole book with them." *

1463. After all, however, Leibnitz does not, in this passage, touch upon the cause that inclines men to form *common names*, and enables them to do so without any difficulty at all, indeed all the more readily the less developed their minds are. This cause always is:

1.° The nature of *perception*, which apprehends things in their special action upon particular sensories, and so apprehends them, not in all their being and all their activity, but only partially, in one-sided activities; hence the mind does not perceive the particular being otherwise than as determined by such sensible qualities;

aqua, &c. So the element *lanum* in *Mediolanum* [Milan] probably means water (*Mediolanum*, therefore, Midwater). The name of the Leno, the torrent that flows through Rovereto, is also derived from λύω, and so with other terms without number.

* *Nouveaux Essais sur l'Entendement humain*, Bk. III, chap. iii, sec. 1. Though some of Leibnitz's etymologies will not bear criticism, his theory might be confirmed by innumerable unobjectionable examples.

2.° The nature of the *feelings*, which allows of different objects producing feelings similar or exactly the same. As a consequence, these feelings, being real, are seen by the mind in connection with their various causes, and these receive a *common* name, in fact more common than that which expresses the aptitude to produce special perceptions, because it signifies several different real objects through the aptitude which they all have to cause those same feelings;

3.° The nature of *appetition*, which is likewise a real, and which is connected in the mind with distant objects, as also with such objects as are also calculated to be *means* for the attainment of these. This gives rise to names more common still, that is, to those that mark many reals by their more or less mediate common aptitude to enable the appetition to obtain the object to which it tends as to its end. Hence, for example, all things suited to carry, will be called *vehicle*, and all things that act as aids in doing anything, *instrument*, and so on.

1464. And here it will be well to say something of that power which Aristotle called the *common sensory* [αἰσθητήριον κοινόν], and which was afterwards universally admitted by the Schoolmen. According to this philosopher, the *common sensory* would be an internal power which receives the sensations of the five external senses and has a special organ in the brain. As to its having a special organ in the brain, this is a gratuitous supposition, and is refuted by sound argument, inasmuch as every corporeal feeling must have a special movement corresponding to it. Now, if there were several simultaneous sensations coming from various senses and received by the same one organ of the common sensory, then the same organ would at the same moment have different movements, which is plainly absurd. And if we should imagine this same organ to be divided into parts, one of which received one movement and another another, it would no longer be a single and common organ, but several organs and several sensories, and hence we should no longer be able to say that a

single sensory organ presides over all the different sensations. Moreover, if, besides the special senses, there were a common sensory residing in an organ different from those of the others, all special sensations would necessarily have to be double, showing themselves, first separately in the special senses, and afterwards together in the common sensory, which is contrary to fact. If to this we add what was said by us in the *Restoration*, &c., against the unification of the sensations in a common sensory, it will appear evident that the common sensory of Aristotle and the Schoolmen cannot be admitted in good philosophy.* Hence also vanishes the faculty which Aristotle attributes to the common sensory, of discerning and *judging* of the difference between the sensations of the various special senses, and likewise the faculty with which that philosopher and his followers endowed each special sense, of discerning and judging which among the various sensations was the one proper to itself.† In the same way, we see how to amend the definition of the phantasy, which to them was the faculty that preserved the *species* both of the special senses and of the common sensory.‡

1465. Apart, however, from these errors, it still remains certain that to what the Aristotelians called the common sensory there must correspond something true, because otherwise the animal would be unable to guide itself in accordance with its various sensations and feelings. Yes, but this cannot be a new sense. What then can it be? We have seen that the animal feeling has an *extended term* and a *simple principle*. Now to the extended term belong the multiplicity and variety of the sensations and feelings, while to the simple principle belongs the power of government which the animal has over its own sensations, its own feelings, its own sensories. This identical principle, simple and immaterial, is that wherein all the sensations and feelings exist, and, therefore, the animal not only feels

* *Restoration*, &c., Bk. II, chap. xxxvii.
† St. Thomas, *Sum. Theol.*, Pt. I, q. lxxviii, art. iv, ad. 2m.
‡ *Ibid.*

each, but is moved by them all at once, and performs its operations according to its total feeling, as we have explained more at length in the second book of the *Anthropology*.

In fact, the animal has a single fundamental feeling which is variously modified, and these modifications are the special sensations,* which do not exist separately from the rest of that feeling, but are more active parts of it, and varieties occurring in its extended term. Hence the animal always acts in consequence of the state of this one feeling, and not in consequence of a mere sensation (though on account of the special vividness of this sensation, the case seems to be otherwise). Hence the total feeling is a real to which, as object of intellective perception, a name can be given, and the special sensations are, so to speak, different sides and attitudes of this feeling, to which a name can likewise be given. And as the term is distinguished from the principle, and is confounded with the stimulus when this is applied to the sensory, so the stimulating object also receives a name in so far as it is stimulant; and this is the common name of all those objects which are calculated to stimulate in a given mode, or even of all objects, provided that in intellective perception the attention is not limited to what is most vivid in the feeling, but embraces the whole of it. In this case the common name invented will be "*the sensible*."

1466. But since, as we have said, man's attention is wont to fix itself upon what strikes him most, or on what he most needs, it is only with difficulty and after a considerable time that the man of nature could succeed in inventing a name which in respect of the things felt would be as common as the word *sensible*. On the contrary, for the things that fall under his senses he at first invents more restricted common names, and then, according to his needs, and even without advertence, uses them in a wider meaning. Thus, at first, when his attention is activated by the vividness and serviceableness of the sensations

* *New Essay*, vol. ii, nos. 705, &c.

of sight more than by any other sensation, he will invent a term equivalent to *visible;* but afterwards he will extend this signification to everything that falls under his senses. And this was in fact what happened, as is shown by all, especially the ancient, languages. Indeed in all languages the terms applied to the sensations of sight were used to signify not only the objects or, to speak more correctly, the terms of these sensations, but everything that falls under the senses. Hence even now in ordinary speech we say *things visible* for sensible things in general. And few subjects are better deserving of study than this history of words, of which the clearest traces still remain among the most ancient peoples and in the most ancient languages. For example, to confine ourselves to the use of the words originally applied to the sensations of the sight, we may see how they were extended to the sensations of the hearing. In *Exodus* (xx, 18), Moses says: "All the people *saw* voices;" in *Deuteronomy* (iv, 9): "Forget not the words which thine eyes have seen." Hence Calmet rightly observes that the Hebrews used the verb to *see*, to signify all the senses (*ibid.*). The Greeks did the same thing, especially the ancients, like Æschylus, who uses the phrases, "to see noises,"* "to see the voices of a man;"† and the examples are innumerable even in Latin, and in modern languages; but the more we descend to modern times, the more the meaning of words diverges from the perception and approaches the common concept.

1467. The transferring of names originally imposed upon perceptions, to designate the full species, which may also be defined as the *perceptions of the phantasms*, accounts for all metonymic, figurative, metaphorical, allegorical and similar forms of speech.

In fact, in the ancient languages we find used, instead of the verb *live*, which marks the whole of the fundamental feeling, words designating those functions of life which, because they attracted man's attention more than any others, characterised the perception. In *Genesis* (xvi, 13), the

* *Septem Contra Thebas.* † *Prometheus.*

Hebrew text has "I do still *see* after Him Who seeth me;" where "I see" stands for "I live."* Elsewhere, "to eat and drink" means "to live," as in *Exodus* (xxiv, 11), where we read that the Jews, after having seen the Lord, "ate and drank." When they meant to express a quiet and prosperous life, they spoke of each man "sitting under his own vine and under his own fig-tree,"† an expression which did not, by itself, signify all that is included in the concept of a happy life, but was transferred and made to include all, because it marked what most attracted the attention in such a life, and the rest was understood. When they meant to say: "Make them slaves," they said "bend down their backs" (*Psalm* lxviii, 24), because this was that part of the concept which, by remaining most deeply impressed on the phantasy, carried with it the rest, without its being expressed in words. When they meant to say "The city shall be filled with gloom and solitude," they said "the voice of the bride and of the bridegroom shall be made to cease" (*Jeremiah* vii, 34). Hence, in the earliest ages it would have been useless to give men general precepts. The only proper way to legislate for them was by particular precepts, which would be as it were so many examples and representations of the general. The whole decalogue is made up of particular precepts. It is there said: "Thou shalt not commit adultery," meaning, "Thou shalt not sin by carnal lust." Again, "Thou shalt not kill," meaning, "Thou shalt do no evil to thy neighbour," and so on. Was there question of intimating the duty of humanity? A general precept would have been of little avail; therefore, particular precepts, like the following, were laid down: "If thou see the ass of him that hateth thee lie underneath his burden, thou shalt not pass by, but shalt lift him up with him" (*Exodus* xxiii, 5). "If thou meet thy enemy's ox or ass going astray, bring it back to him" (*Ibid.* 4). "Thou shalt not speak evil of the deaf, nor put a stumbling-block before the blind" (*Levit.* xix, 14). The phrase, "to take or

* "*Videre,*" says Calmet, "*hic positus est pro vivere; vitæ functio pro vita eâdem.*"

† 3 *Kings*, iv, 25.

kill a mother with her young" is used in Scripture to mean "hideous cruelty." And the Scripture is full of similar phrases, but the Old Testament more so than the New, and the oldest books have almost no other language. Next to the Scriptures, Homer abounds in them. And if such modes of speech are not found so frequently in the sacred books of India and China, this is to me a fresh proof that these books are not so old as some suppose, or that they were altered and translated. At the same time, their less figurative style may, perhaps, in some measure be due to the rapidity with which in ancient times thought developed among those peoples for a certain period, and then stopped. The characteristic, then, of the ancient words and phrases of which we are speaking is that "they express the concept as given in perception," and that afterwards the expression, while in itself still special, is transferred to signify a more and more common or general concept or proposition.

1468. This, as I have said, is the origin of all figurative language and of all grammatical figures. Hence the style of the ancients is more poetic than that of the moderns, because it paints things to the senses. The natural development of thought and of name-giving to thoughts is quite sufficient to explain this fact. The ancients, being under the necessity of forming a language which they did not yet possess, could not do otherwise than name first the concepts bound up with the perceptions, and then, in course of time, the concepts separated from them. But in the perceptions they did not name the whole, but only that which was most striking and attractive to the attention. This element was taken as an indication and sign of the entire perception, and the name expressed the perception, because it referred to that natural indication or sign. Thus the word always signified, "that which produces such or such a feeling," for example, the *beautiful*, that which produces the feeling of beauty; the *wholesome*, "that which produces health," and so on. But this same mark was afterwards found in other objects, and hence the word was suited

to signify them also. It was found, I mean, in other objects, even dissimilar from one another, on account of the sameness of the feeling produced by them; because it was to the feeling (I repeat) that the meaning of the word referred. Hence, the "unity of feeling" is the primitive instrument in the formation of the genera and the species that have been designated by names, because it is an effect produced equally by several causes and, therefore, a *natural sign* common to them.

1469. Moreover, the *unity of feeling* is also the cause of the *association of partial feelings*, in which association, as I have said, lies the origin of figures, and especially of metonymy, inasmuch as what man names in relation to the perceived feeling, is the element that attracts his attention most, either because of the peculiar *vividness* with which he feels it, or because of *need* he has of it—which are the two guides of human attention. Now it sometimes happens that into one and the same feeling there fall at once the cause and the effect, the container and the contained, the sign and the thing signified; hence the word which expresses one of these elements is transferred to signify also the other, or even to signify them all, precisely because, in virtue of the association of which I speak, one feeling is apt to awaken others. Thus, for example, we say: "I have not seen his face," to mean: "I have not seen that man." Here the part that most attracts the attention is the face and, therefore, the word is calculated to awaken the thought of the whole man. We say: "He grasped the steel," meaning, "He grasped the sword," putting the matter of the instrument for the whole instrument, composed of matter and form. We say: "All the earth rejoiced," meaning: "All the inhabitants of the earth rejoiced," putting the container for the contained. And so with all other cases of metonymy.

1470. It must also be observed, that this change of signification never ceases. Hence one of the reasons of the changes which languages undergo. The association of thoughts and feelings never ends or stops, but developes in

a continual series, which sometimes becomes complicated and variously entangled. Such is the perpetual progress of the human mind and, with it, of the use of signs, which, from being common names, sometimes become individual, and from being individual become again common and universal, from being metaphoric become proper, and from being proper become again metaphoric. For example, the word *Adam*, when first used, must, according to the logical order, have signified a certain portion of red earth perceived, and therefore have been imposed upon that individual object of the perception; then it must have signified all earth that was red, which was the specific idea included in that perception. Thus it became a common name. Then it expressed the first man created, because he was formed of red earth, and so the common name again became individual. Then it was made to include woman, as well as every man without exception, thus receiving the general signification of "That which is formed of red earth," still, however remaining bound, in the *use*,* to a more restricted genus, namely that of men.

1471. Thus far, we can see how men living in society could have thought the common, and invented words to mark it. But the common is not yet the pure abstract. This comes later, and it is very much more difficult to understand how it could have originated. We have elsewhere expressed the opinion that men could never by themselves have come to think and designate pure abstractions, for the reason that had they not in nature any stimulus to do so, and hence we inferred the divine origin of this portion of language.† Since then, we have given this subject more mature reflection, and now that proof does not seem to us irrefragable. Let us, therefore, distinguish between the question of fact and that of *simple possibility*. As to the fact, there can be no doubt that the first man received his impulse to speech from God Himself, Who, by speaking to

* This distinction between the *use* made of a word, and its *nature*, that is, the manner in which it marks things, must never be lost sight of.

† *Theodicy*, nos. 100-115. *New Essay*, &c., vol. ii, no. 522, *note*.

him first, communicated to him a portion of language. The arguments that prove this we shall set forth in another place. But confining ourselves to the simple metaphysical question of whether the human family (not an isolated man) might possibly in the course of time have come to think at least a few abstracts, designating them at once and with one and the same complex operation, by words or other signs, it seems to us now that it may be answered in the affirmative, and that we have discovered the stimulus we had vainly sought for before, by which the human understanding might have been moved.

This operation could not, certainly, have taken place till long after those mentioned above, and therefore, *abstract names* must have been discovered subsequently to common names. This is clearly shown by the ancient languages, which contain very few abstracts (and these perhaps of divine origin), and, instead of them, very frequently use *common nouns*, that is, *qualificated substantives*, a character which we find even in the language of Plato, who, though he carried abstraction so far, yet, instead of calling his dialogues on *justice*, *beauty*, *holiness*, *goodness*, &c., by these names, he called them dialogues *On the Just* (περὶ τοῦ δικαίου), *On the Beautiful* (περὶ τοῦ καλοῦ), *On the Holy* (περὶ τοῦ ὅσίου), *On the Good* (περὶ τοῦ ἀγαθοῦ), &c.

1472. How, then, do we believe that the human family might by itself have arrived at the pure abstracts, or at least at some of them? For this it is undoubtedly necessary that we should be able to find in real nature something to link the abstracts to, so as to serve as a natural sign of them; because it is only on this condition that the attention of the human mind can rest on them and seize them. Now this something is, in truth, not wanting. Here it is and the manner in which it is given to man:

The purpose for which a name is invented is to awaken in the minds of others the concept of the thing signified. Hence the part is used for the whole, the container for the contained, &c., whenever the name given to the part, or the container, is sufficient to awaken in the mind the

concept of the whole and of the contained without its being necessary to invent another name: and this end is very well obtained by means of the natural association of feelings.

Now, if we consider that corporeal beings have a multiplicity of parts, and that each part can be perceived by itself, it is clear that it can also, without difficulty, be named by itself. Hence in the case, for example, of the human being, besides the name *man*, there were readily invented the special names of head, face, arm, hand, &c.

But then every one of these parts has its own special endowments and properties, which are perceived along with the parts themselves. For instance, let one of these properties be strength. This may be designated in two ways, either by a common neuter noun signifying "that which is strong," or by the name of the part in which it is found most frequently and most usefully for our needs, for example, in the hand, in the arm, &c. In which of these two ways will it be named? In that which comes easiest. Now which is the easier way of signifying power—to use the words hand, arm, &c., or to invent a new term? Since the names for those strong parts of the body are supposed as already invented, it is plainly more easy to use them, giving them a metonymical meaning; for it is a general rule that "to extend or transfer the signification of a word already in existence is easier than to invent an entirely new one." Now as the names of the parts alluded to signify objects of perception, so they are among the first invented. Hence the hand, the arm, &c., will be taken to mean power; and this is exactly what we see in the ancient languages. Thus the Scriptures continually make use of such phrases as the "hand of the Lord," * and the "arm of the Lord," † to signify the power of God, and for a similar reason they say, "the horn of David," ‡ to signify the power of David. We have therefore found the sign to which the mind can really link an abstract concept; and it appears much more clearly that this name already signifies

* 1 *Kings*, v, 6. † *Isaiah* li, 9. ‡ *Psalm* cxxxi, 17.

an abstract when, as sometimes happens, it loses its primitive signification, and comes to signify only the abstract. Thus the *face* or the *countenance*, in which one can read the feelings of a person, are, when applied to God, taken to mean His benevolence, as also His wrath.* Again, God's *ways* signify His providence, and so on. In this manner, in truth, great advances may be made in the formation of pure abstracts, and a very high order of abstraction reached. Let us cite an example of the higher abstractions. In the first place, by metonymy, the sign is taken for the thing signified. This is most common and most natural. For example, let it be asked: "What is this?" and let the answer be: "It is a body, it is light, it is an elephant, &c." In this reply the sign is taken for the thing signified, because instead of saying in a roundabout way: It is what is signified by the words body, light, elephant, &c., one says simply that it is the word itself. What wonder, then, that the term *word* (*verbum*, λόγος, דָּבָר) is used in the Scriptures and in Greek and Latin writers in the sense of *fact* or *event*, or even in the most general sense of *thing*, as may be seen in the lexicons? "Forget not the *words* which thine eyes have seen,"† says Moses. "Behold, I will do a word in Israel,"‡ &c., occurs in the first book of the Kings, and this is a very usual mode of speech in the Sacred Writings. Thus the term *word* comes to mean the highest abstract by means of which *real and efficient being* can be conceived, and the same term was used to signify also the second of the three Divine Persons.

Ideal being also could be signified as representing real being, by applying to it the word *image* or *thing seen*, as was done in the old languages.

1473. Now, when the mind has succeeded in fixing a few abstracts by means of these sensible signs furnished by nature, and hence named them by applying to them the names originally given to such signs, it no longer finds any insuperable difficulties in its way, and, therefore, its whole development may be naturally explained.

* *Psalm* xxvi, 8, 9; *Levit.* xx, 3, 5, 6. † *Deuteron.* iv, 9. ‡ 1 *Kings*, iii, 11.

CHAPTER XXI.

SECOND PSYCHOLOGICAL LAW: LIMITATION AND CONCENTRATION OF THE ATTENTION.

1474. Given, then, that the soul is supplied with the *terms* and *stimuli* necessary to call it forth into its proper acts, it then maintains in these acts a *mode* of its own.

The mode is this: Having only a limited activity, when it wishes to unite itself more closely to a given term, it concentrates the whole of this activity on a single part of that term, and thus withdraws it from the other parts. Hence arises analysis, formal or material, according as the object on which it exercises itself is an extended one or not.

Formal analysis is *abstraction* properly so-called, which, in an ideal or spiritual object, considers one element and leaves aside the rest, and this is the psychological law corresponding to the ontological laws we have described above.

1475. Here there springs up a difficulty that demands solution. How can an ideal or spiritual object, being perfectly simple, be analysed and, so to speak, divided into parts by the use of human attention? And are these parts true parts, or are they only apparent and illusory?

In order to answer this we must observe:

1.° That a simple thing is frequently multiplied by the spirit considering it in relation to many things, as, for example, when one says: *Ideal being is the possibility of things*, one considers this being simply in relation to its realisation, without thereby predicating possibility of ideal

* *New Essay*, vol. vi, nos. 575-578.

being itself. Thus all those ideas which we have called "elementary ideas of being" are merely so many relations in which it is viewed.* Now the fact of a simple being having *many relations* does not deprive it of its simplicity, just as the centre of a circle is not deprived of its simplicity although it be regarded in relation to all the innumerable points assignable in the circumference.

These relations only show that that simple being is not alone, but that there are other beings, which can by means of thought be referred to and compared with it, and *vice versa*. Indeed, if there were only *ideal being*, and no real being (which is impossible), then nothing could be distinguished in it, because it would always, in itself, remain perfectly uniform. Hence the objections which Plato† and Aristotle‡ urged against Parmenides would have no force except on the supposition that the latter, in admitting one only being, had meant ideal being, the idea of being. Those objections were to the effect that Parmenides taught a self-contradictory doctrine, because he attributed to his being immortality, immobility, uniformity, integrity, perfection, &c., whereas (said the objectors), if being is simply and absolutely one, nothing can be added to it. But in those times it was not yet known that being exists under several forms, and, as a consequence of this ignorance, it was, unconsciously, spoken of sometimes under one form, sometimes under another, and so those great intellects were lost in an inextricable maze of confusion. But for the most part, when the discussion developed to a high point, it terminated in the *idea of being*, and the properties of this idea were attributed to *being* itself. Hence, as the idea shows in it no variety except when confronted with the real, they denied that being itself had any internal variety or order. Hence those objections which seem so difficult of solution;

1476 2.° That a being may be simple and yet contain variety. The reason that sometimes makes us think the contrary is that we have no other conception of *simplicity*

* *New Essay*, &c. † *Sophist.* ‡ *Physics*, I.

than that which we derive from the mathematical point, a mere negative concept, meaning only the negation of extension. But simple beings do not consist of mere negation, but are, on the contrary, positive, and even more positive than the extended beings. Simple, therefore, is that from which nothing can be removed without its being destroyed.

1477. According to this definition, the containing many and various things is in no way incompatible with the simplicity of a being, provided only that all those things are unified in such a manner that the removal of any one of them would involve the destruction of the being itself.

1478. Hence various classes of simple beings.

The mathematical point, as we have said, is not a *being*, but a *negation ;* it is not an *object* to our spirits, but an *act* performed by them upon an object (extension).

Ideal being is completely uniform. So long as it remains alone, nothing distinct can be discerned in it. In order to distinguish anything in it, we must confront it with real being.

The *Spiritual being* is simple and not internally uniform, but rather, so to speak, organised, yet in such a way that none of its organs, none of its essential elements, can be sundered from it without destroying it. This, however, must be understood in several ways ; for,

(*a*). If we refer to the reality of the spiritual being, its accidental parts may *change into others*, without its being, therefore, divided. It may even *multiply*, if its term multiplies, as is in fact the case with the animal principle ; but this, again, is no division.

(*b*). If we refer to the idea of the spiritual being, we may, 1.° mentally conceive both the changes of the accidents of this being, and its multiplication ; and, 2.° we may furthermore divide its elements by *abstract thought*, but not by the *complex thought*, which always remains in our mind. Nor does the fact that abstract and partial thought finds such distinctions militate against the simplicity of the being, neither is it contrary to truth, because those elements of the being, although distinct, are not separate. Now the

abstract and analytic thought does not separate them, but only distinguishes them, while at the same time the entire and complex thought keeps them individually united, and if we sometimes *believe* that we separate them, it is an error: this belief has its origin, not in the thought itself, but in arbitrariness, the source of human errors.

CHAPTER XXII.

THIRD PSYCHOLOGICAL LAW: ABSENCE OF CONSCIOUSNESS.

1479. We know nothing but the objects of our thoughts (ideas), and what we interiorly pronounce about those objects (*Verbum mentis*).

When the object of thought is ourselves, or what is or happens in us, then we know ourselves or what is or happens in us. Such knowledge is called *consciousness*.

Consciousness is different from *feeling*, because consciousness is cognition and has the duality proper to cognition (the knower and the known as separable beings), while feeling is simple, having only that peculiar duality whereby two terms, though distinct, are so closely correlated that the one cannot be thought as a being if it is separated from the other.

1480. Now, so long as the human spirit has for its object only infinite-ideal being, it has no consciousness, because neither itself, nor what takes place in it, has yet become an object of its attention.*

Attention, therefore, directed to our own selves, is what produces consciousness.

That there may be consciousness, then, it is necessary that the human principle (which is afterwards called *Ego*, I, *Myself*) should draw its own attention to itself.

1481. But the human principle is not moved to attention except by some *need*. Now, how is this need defined? Thus: "Need is the instinct impelling to the completion of an action which has begun," or, which is the same thing,

* Spinoza and the German philosophers, on the other hand, maintain, in defiance of the plain fact, that we are always conscious of what goes on within us.

"It is the instinct impelling to complete an activity which has begun to move."

1482. But all human activity begins to move by means of its real term, as we have said. Hence it is only by a real term being added to man's intellective principle, that it is possible for him to be moved to attend to himself, and so form consciousness.

Now, given the conditions under which man forms consciousness, he may also, in thought, separate himself positively from the [primitive] ideal object, and know himself as a subject placed in opposition to it.

1483. There is, therefore, a difference between man's primitive state, anterior to all his intellectual development, and his conscious state, in which he distinguishes ideal being from himself.

In his primitive state, he knows ideal being only, not himself. Therefore, he *does not confound* ideal being with himself, because the *self* is not yet formed; but neither does he distinguish the two, because one cannot distinguish two things without knowing them both.

In his conscious state he knows ideal being, and knows himself as a subject opposed to this object, and so *distinguishes himself* by a positive act.

1484. We may, therefore, lay it down that man is subject to this psychological law, that he can have knowledge without consciousness, and that consciousness arises in him only in consequence of real stimuli which impel him to intellectual action.

CHAPTER XXIII.

FOURTH PSYCHOLOGICAL LAW: KNOWING BY AFFIRMATION OR NEGATION (*VERBUM MENTIS*).

1485. But what the human spirit adds of its own is the *word*, that interior word whereby it affirms or denies.

By this act the spirit acquires a new cognition, but, be it carefully noted, not a new *object*, because what the spirit pronounces implies the object as given to it by intuition, or by perception, or by reasoning; the object being as it were the matter about which the pronouncement is made.

1486. Now this word, judgment, affirmation, or whatever else we choose to call it, is moved by the practical reason acting on the theoretic, and therefore belongs to the practical reason as its cause more than it does to the theoretic, although sometimes it follows immediately, and by a kind of psychological instinct, upon the theoretic vision.

1487. In order that this interior word may be uttered, the spirit must be able to find in the object a duality of such a nature as to furnish a predicate and a subject. And since *infinite ideal being*, when separate from all real things, is so uniform as essentially to exclude from itself all multiplicity whatever, in the simple intuition of it there can be no pronouncement, no judgment.* Consequently the spirit, in order to be in a condition to affirm or deny, must be placed in communication with some real being, for it is only from real being that plurality arises.

1488. But what is the nature of the cognition acquired by the spirit through the word, if this word adds no new object to it?

* *New Essay*, &c., vol. ii, nos. 552, 557.

The cognition produced by the word of the mind is entirely different from that produced by the *idea* (by being); it is a *subjective* cognition, whereas the knowledge of being is, as we have seen, essentially *objective*. When we say *subjective cognition*, we do not mean false cognition; far from it; we mean to say that it has not its truth in itself, like the knowledge that comes from the idea; but must receive it from the idea, by attuning and adjusting itself to it.

1489. Seeing, therefore, that the object, being, the idea, is truth itself, it follows that it stands above the true and the false, and cannot receive these predicates: the only name it can properly receive is *truth*—a synonym so to speak of itself.*

The *true* and the *false*, therefore, belong to the pronouncements of the spirit, and not to the object.

1490. This observation enables us to solve the famous sophism of the ancients, who argued as follows:

"Man does not think, and therefore cannot pronounce, anything else than being, because non-being is neither thinkable nor pronounceable;

"But to be and to be true are one and the same thing;

"Therefore, all that man thinks and pronounces is true." †

We reply by denying the major, if taken in its totality; or else, distinguishing the parts of it, we say:

"Man does not think anything else than being." If by the words "Man does not think," you mean to express only an objective thinking, *concedo;* but if you mean to express all modes of thinking, including the subjective, which consists in pronouncing something about being, *nego;*" and hence I deny that "man cannot pronounce anything else than being," because man's pronouncement, being an affirmation or denial of something, has for its

* *New Essay*, &c., vol. iii, nos. 1062-1064; 1112-1135.

† Plato in Euthydemus, Cratylus, Sophist, and Theætetus. He attributes the invention of this sophism to the philosophers who preceded Protagoras, although this famous sophist made great use of it.

object, not being itself, but the *nexus* between being and that which is predicated of it.

Now, about being, one may pronounce both the true and the false; but in this latter case it is not being that becomes false; the falseness lies in the pronouncement, which is a subjective act of the spirit.

1491. The force of this most important distinction has never been fully felt by any philosopher that I know of, neither has the nature of subjective cognition, which takes place through the pronouncement, judgment or word of the spirit, ever been properly seized and described.

In what, then, does the nature of this kind of knowing consist?

As we have already said, it does not consist in the acquisition by the spirit of a new *object*, but it consists "in the spirit being able to dispose itself in a certain mode with relation to the object which stands before it." If the spirit affirms, it disposes itself, relatively to the object, in one mode; if it denies, it disposes itself in another mode. The object remains the same; for what is the object? To say it once more, the object is the essence of the thing seen in the idea. Therefore, in the object, there is neither affirmation nor negation; these are purely acts of the spirit. Whether anything be affirmed of this essence, or whether it be denied, the essence itself remains unchanged before the mind. For example, I deny that in this garden there is a pear-tree or a fig-tree; the essence of pear or fig-tree which I see with my mind, is just as it was before my denial: my spirit merely declares to itself that this essence is not realised in this garden. Had I, instead of denying, affirmed, the essence would equally have undergone no modification of any kind.

1492. What is the effect produced by this act in the human spirit? By what name can this effect, this disposition which the spirit assumes by its act, be designated? We have termed it *persuasion*; hence, this species of knowledge may also be called *knowledge of persuasion*, or *of predication*. The ancients, sometimes confounded *persua-*

sion with *opinion*. The two differ widely, since the latter may go along with either a strong persuasion or a weak and vacillating one.

1493. Let us try to dispel the difficulties that might occur to some minds on this point.

The object intuited, or directly apprehended, is one thing, and what the spirit subsequently *predicates* of that object is another.

In intuition and in direct apprehension error is impossible.*

In predication error is possible, because this act may be made in a way either conformable to or at variance with the object.

Against this, however, someone might easily argue as follows: "Suppose I predicate something of a certain object, is not this predicable something also an object? If so, then the knowledge of predication also has for its term an object, a new object."

To this we reply: The term of the knowledge of predication is not any object, that is, it is neither the subject nor the predicable, but it is the conjunction of the two: by means of the predication, which is an act of your spirit, you know that they both meet together in one and the same object.

It may be rejoined: Then the *union* of subject and predicate is the object of the knowledge of predication; therefore this knowledge has an object of its own; therefore by means of it a new object is given to the spirit.

He who reasons in this way is the victim of one of those common illusions which it is most difficult to avoid, but which we are continually trying to point out, because they prevent the mind from philosophising aright. The illusion is this:

The *relation* between a predicate and a subject may be considered simply as possible (intuible), and in this case it would be an object; but then it would not belong to the class of things known by way of *predication*, but of those

* *New Essay*, &c., vol. iii, no. 1246.

known by way of intuition. Let us give an example. When I say: "This body is cold," I predicate cold of this body, and thus persuade myself that it is cold. But before making this affirmation, I may conceive the relation between cold and that body, without affirming it; and I may also at the same time conceive, in the same way, the relation between that body and heat. So far, then, I have not affirmed either the one relation or the other: I have simply the *intuition* of two possible relations. But by this intuition I have already in my mind the object which I may either affirm or deny. Inasmuch, therefore, as the object is in my mind antecedently to either its affirmation or denial, the formation of it cannot be the aim of these operations. That aim is simply to make me persuaded that the one of the two relations which I intuite as possible, is, and this persuasion I have the moment I pronounce that it is.

1494. But, again, it may be asked: "What is the meaning of this *is*, which is pronounced of one of those two possible and contradictory relations?"

I answer: The *is* may be taken in two senses. It may signify either the act by which a purely ideal being is, or the act by which a real being is. If the affirmation does not go beyond the sphere of ideality (possibility), as in logical or mathematical affirmations—for example, "The consequence *is* contained in the principle," or "The sum of the three angles of a triangle *is* equal to two right angles"—then the copulative *is* signifies only ideal being. If the affirmation descends to the sphere of reality, as in physical affirmations—for example, "This metal *is* gold," or "The Sun *is* a body"—then the copulative *is* signifies a reality belonging to a real subject. The subject may even be a being abstracted from its forms, and the predicate may consist in its real form, for example: "This being subsists." In this case, *subsistence* or reality is taken as the predicate of the essence of the being in question.

Now when the copulative *is*, which is always pronounced in predication, signifies an ideal being, this is how it happens. The *ideal being* is the object; and, if it were not before the

mind, one would not be able to predicate anything of it. Now this object is intuited by the mind in its entirety, according to the ontological laws which we have set forth. But in the human spirit, besides the faculty of intuition, there is also the faculty of abstraction, which acts by limiting and concentrating the attention. This abstraction does not destroy the object, but considers it under partial aspects, by distinguishing the elements of it. This operation refers only to the thinking *subject:* the object remains intact, both in itself and before the mind; only that the mind, besides having the entire object before it by intuition, has likewise the object divided into its elements by abstraction. This *abstraction*, which is a kind of analysis or decomposition, opens the way to *predication*, which is a kind of synthesis whereby these decomposed elements are reunited. When I say *analysis* or *synthesis*, I speak of the form assumed by the operation of the thinking subject, and not of the result of that operation. In fact, it is possible to make a division in the form of synthesis, and this really happens when, instead of affirming, one denies a predicate of a subject. But since we are speaking of subjective operations, we must look at their form, and not at their result. Now, if the *predication* is false, that is, unites one element of the object to another which does not belong to it, then the thinking subject pronounces an *absurdity* (we are speaking at present of the ideal world), and an absurdity is not a true, but only a fictitious object. I say the thinking subject pronounces an absurdity, because when he affirms an ideal predicate of an ideal subject, as in the case supposed, then the affirmation refers to *possibility*, and if it pronounces possible that which is not possible, it pronounces an absurdity. To predicate possibility, therefore, is merely to *recognise* what is *known*, to affirm the intuition of what is intuited. But if there is question only of recognising, that is, knowing *in another mode* what is already known, it is plain that no new object of thought is thereby produced; there is only a change in the *mode* in which one tries to cognise the known object, and this different mode, which cannot belong to the object,

belongs to the subject. It is, therefore, merely a new attitude which the thinking subject assumes relatively to that object, and this attitude is called *subjective cognition* or *persuasion*, which is either true and false, according as it is in conformity with the object or contrariwise.

1495. If, on the other hand, the copulative *is* signifies a real being, as in the example cited, the result is the same. The only difference is that the elements of the judgment or predication are not given by abstraction, and hence, when the judgment is false, it is not necessarily absurd. For example, when I say, "This metal is gold," when, in fact, it is brass, I speak falsely but not absurdly, because it is not impossible to conceive that the metal might be gold; and when I say, "The phœnix subsists," I also say what is false, not what is impossible.

Here, therefore, the elements of the judgment are in part given by feeling, so far at least as regards the *predicate;* for the predicate is a real, and a real signifies nothing else than a thing that falls within feeling. Now feeling is subjective, and altogether outside the object of the mind; but the thinking individual performs an act, in which he unites feeling (the predicated real) with the subject of which there is question, and which may either be also a real, or else the essence of being viewed apart from its forms. Now this conjunction of identity does not produce anything new in the object, but it wholly takes place in the subject that makes it. It is simply the new attitude of this subject, of which we have spoken, and which constitutes *subjective cognition.*

1496. In fact, we have already distinguished the *fundamental union* of the human subject with the object, which takes place, first, through intuition, and then through that more intimate *union* which the subject himself contracts with that same object. This second union which, as we have said, belongs to the *practical* or active *reason*, does not produce a new object, but only a new degree of union, and, therefore, a new *cognition* relative to the same object, a cognition which may be either true or false.

1497. But is not reality thereby added? And is not reality a new object? I reply:

Reality is indeed added; but it is not a new object. It is merely a predicate, an appurtenance of the object previously intuited. If, for example, that object was the essence of bread, intuited in the idea of bread, when I say, "The bread subsists," I only add to the object which I knew before (ideal bread), reality, which is not an object but a subjective thing, a thing falling within feeling; and therefore the subject of this proposition is truly object, but the predicate is not object, but rather the term of the affirmation, a subjective term, because lying in the feeling of bread. Hence that proposition is equivalent to this other: "The bread which is the object of my mind has a mode of being outside of my mind, and this mode of being is sensible to me thus and thus." Be it observed that if I take the *sensible being* as the object of my mind, and not as a thing of feeling, then it is simply a possible, and there is not yet any affirmation, which is what we are now dealing with. If, therefore, the two terms of the proposition, 1.° bread, 2.° subsistence, are considered by me as possible, they are objects, and then the subsistence is no longer subsistence, but the *idea of subsistence*, and we are back again in the ideal order. In this case I have not pronounced the connection of these objects; but when I do pronounce it, I do not add another object. So long as I intuite it as possible, I do not pronounce or affirm it, and when I do, it becomes persuasion or subjective cognition.

In the ideal essence of a being, therefore, its reality is already contained as ideal; but this is not properly a *reality* for the human spirit until this affirms it. The spirit, therefore, affirms the object which it previously intuited, and it does so because it feels the object; and for the spirit to affirm it is only a new mode of uniting itself to it.

CHAPTER XXIV.

COROLLARY ON THE CLASSIFICATION OF HUMAN COGNITIONS.

1498. Here we think we ought to introduce a corollary which proceeds from the doctrine just laid down.

Human cognition is of two kinds, the one *objective*, the other *subjective*, because the activities of the rational principle are two, the one roused solely by the object, the other belonging to the subject itself.

To the former activity, that roused by the object, there corresponds in the rational principle objective cognition, entirely regulated by the ontological laws which we have set forth. To the latter activity, proper to the subject, there corresponds subjective cognition through predication, regulated by psychological laws.

1499. The first of these two modes of cognition has as its term the intuited object (the *possible*), and with regard to it the proposition, *Scientia est de necessariis*—"knowledge is about necessaries"—is true.*

The second has for its term *persuasion*, or a certain state into which the human subject enters relatively to the object, uniting himself to it in a new mode, and thus increasing his knowledge; but with reference to this the proposition *Scientia est de necessariis* is not true, since knowledge may refer to contingent things, because the real may be contingent. Indeed, every contingent is real, although not every real is contingent.

1500. This distinction suffices to overthrow Idealistic Pantheism, which from the false principle that all know-

* To this knowledge belongs also the old dictum that *Omnis cognitio est per formam* (St. Thomas, *Sum. Theol.*, Pt. I, q. xii, art. i, ad. 2). Hence was derived the consequence that *Infinitum quod se tenet ex parte materiæ non perfectæ per formam, ignotum est secundum se* (*Ibid.*). We say more generally that *every subsistence* (except the divine) considered *per se* is unknowable, and therefore, the *idea* (objective knowledge) must precede all cognition through predication (subjective knowledge).

ledge is objective infers that, therefore, all knowledge is about necessary things, which resolve themselves into God. Hence it asserts that God is the universal and immediate object of knowledge. And since every entity is an object of knowledge, it at once concludes that every entity is God. The error of this mode of reasoning lies in its *principle*. It is not true, as we have said, that all knowledge is objective, and also it is not true that all knowledge is about *necessaries*, there being a species of knowledge which relates to contingent things, a subjective knowledge which is formed by way of predication.

1501. The same distinction between knowledge by intuition and knowledge by *affirmation*, gives a solid basis to *philosophic method*, by excluding the error of those who say that all that man knows reduces itself to *facts*, and that man cannot know the *reasons* of things, and consequently there is no true validity in the speculative sciences, but only in the positive ones, &c.

Now the word *facts* may be taken in several significations. In the most obvious sense, *facts* are the terms of that knowledge which is acquired by *affirmation*. But this is not man's only knowledge; on the contrary, before knowing by affirmation, he knows by way of intuition or idea. Hence he can also refer the cognitions acquired by his *affirmations* (the facts cognised) to the cognitions he has by way of *intuition*, and find the relations between them. In these relations lie the *reasons of the facts*, which reasons become a third species of cognitions. From this error not even the Scottish Philosophy is free.*

If, however, we give to the word *fact* a most extensive, though improper, signification, then we might distinguish, 1.° the real facts, 2.° the ideal facts, 3.° the relations between the latter and the former, namely, the reasons which explain the real facts. Only in this improper signification can it be said that all human cognitions have facts for their matter.

* See Dugald Stewart, *Elements of the Philosophy of the Human Mind*, vol. i, chap. i, sec. 3, where he expounds the system of Reid.

CHAPTER XXV.

RECAPITULATION.

1502. The four psychological laws which we have enumerated and put down in contra-distinction to the ontological ones may be epitomised as follows:

The rational subject acts according to two laws that are negative, and two that are positive.

The negative are the first and the third, which say: 1.° That the object does not rouse in the subject any other activity than that which rests in it by intuition; 2.° That, consequently, it does not give to the subject the consciousness of himself, which arises only with his second acts.

1503. The positive are the second and the fourth, and they say: 1.° Supposing as given to the rational principle, by means of cosmological stimuli, its movement to second acts, this principle can concentrate its attention and limit it to some one of the elements of the object, or objects if they are many, or to one or other of the relations between the several objects, and thus acquire also the consciousness of itself as a being which intuites the object; 2.° Assuming the said movement, the rational principle can see in the object its own subjective modifications, and form the various concepts, and hence acquire subjective cognition, or cognition by predication, and by means of it recognise the object itself.

CHAPTER XXVI.

ON THE COSMOLOGICAL LAWS OF THE RATIONAL PRINCIPLE IN GENERAL.—TWO KINDS OF COSMOLOGICAL LAWS: (1) LAWS ACCORDING TO WHICH THE RATIONAL PRINCIPLE MOVES TO ACTION; (2) LAWS WHICH DETERMINE THE QUALITY OF THAT MOTION.

1504. We have not been able to expound the psychological laws of the rational principle without mixing them up with what is furnished to the human spirit by the world, because the motion of the human spirit to its second acts is not communicated to it except by the action of the world.

Hence the necessity of distinguishing those laws which govern the production of the motion of the rational principle already constituted, and which we shall call *Laws of the motion*, from those which determine the *mode* followed by that motion, and which we may call *Laws of the quality of the motion*.

1505. The *Laws of the motion* are cosmological, that is, imposed upon the spirit by the contingent entities that act on it.

The *Laws of the Quality of the Motion* are partly cosmological, and partly psychological.

1506. Hence we shall reduce all the cosmological laws to two supreme ones. The one of these we shall call *Law of the Motion*, because it expresses the dependence of the acts of the spirit on the stimulative action of the world; the other we shall call the *Law of Æsthetic Harmony*, because it expresses the quality and the mode of the motion of the spirit and its second acts, which motion is determined by the harmony of the world, pre-established by the Creator in order that a similar harmony may transfuse itself into the spirit as it goes on unfolding its activity.

CHAPTER XXVII.

COSMOLOGICAL LAW OF THE MOTION.

ARTICLE I.

Two Parts of this Law.

1507. In the sensism of Fichte (the idealism of this philosopher is pure sensism) the human spirit posits itself by the same act by which it posits the world. It affirms at once the *Ego* and the *non-Ego* as correlative opposites, of which the one limits and thereby distinguishes the other. According to us, the human spirit is not constituted in this way, but proceeds by the following acts:

1.° It intuites the object, universal being, without affirming it, without affirming itself, without having any consciousness of itself or of its act: it lives and is in the object;

2.° At the same time, it perceives a fundamental feeling, and, therefore, has a *fundamental perception*, which is *apprehension* without *express affirmation*. Still, it does not thereby perceive itself as *perceiver*, it has no consciousness of itself, although it has knowledge of its own feeling, of the term of the feeling and of its principle, so, however, that this principle is not divided by any act of the spirit itself from the term in which it lies.

Consciousness and the *Ego*, come long afterwards, in the manner which we have explained.

It follows, that the term of the fundamental feeling is not perceived through pronouncing a *non-Ego*, which is a relation to the *Ego*, but it is perceived simply as extended, without any reference being made to the *Ego*; for the *Ego*

has not yet revealed itself. The truth is, the *Ego* is not the sentient principle, but the rational principle which, after perceiving the fundamental feeling, has, by reflection, acquired consciousness, that is, perceived itself. Nevertheless, there is in feeling that duality which is expressed by the words signifying the two correlative concepts of *principle* and of *term*, but which Fichte falsified by applying to it the terms *Ego* and *non-Ego*.

1508. Now, the change which takes place in the fundamental feeling is the condition of the impulse which moves the rational principle to its second acts; and since this change takes place naturally through the action of the agents that compose the world, the spirit is said to be subject, in its development, to this law of dependence on the world—a cosmological law.

This law, therefore, may be expressed in the manner already indicated, viz., by saying that the *real* is the term that excites *attention* (which is *the radical force of subjective knowing*), and actuates and concentrates it.* Hence when the real is removed from the soul, the soul cannot retain any cognitive act except the primitive act of intuition, without subjective attention or any concentration of it. Thus, it may be said, in a certain sense, that the human subject, as such, has, in this state, no actual cognition of his own.

1509. But in this law two things are to be considered:

1.° The reason why the rational principle passes to its second acts, thus issuing from its inertia; and this reason may be thus expressed: "The real, as term of the rational principle, is what excites the *attention* of that principle and impels it to its acts of subjective knowing;"

2.° The reason why these second acts of the rational principle are vivid, lasting and satisfying; and this reason

* This law, therefore, has, 1.° a negative side, which says: "Without the stimulus of the real, the rational principle does not pass to its second acts," and in this negative respect it is a *psychological* law corresponding to the ontological ones; and, 2.° a positive side, which says: "The real rouses the attention, keeps it in act, and concentrates it," in which respect it is a cosmological law of the human spirit, because it expresses the activity of this spirit corresponding to the real term, the world.

may be thus expressed: "If the second acts of the rational principle find a real term, then they are stable and vivid; otherwise they are languid, wearisome, and soon cease."

Let us consider these two parts of the law separately.

ARTICLE II.

First Part of the Cosmological Law of the Motion: The Real, as Term of the Rational Principle, is what rouses its Attention and impels it to the acts of Subjective Knowing.

1510. This law is patent from experience. The following observations may be made on it:

1.° Not every real excites the rational principle to the same degree of attention, or exercises the same amount of action on it. Some reals merely attract to themselves that attention which rests satisfied in perception; others, on the contrary, go to the extent of exciting *reasoning*.

1511. 2.° The reals which excite reasoning and not merely perception, are the various *needs* felt by the rational principle. These needs make it instinctively seek all ways of satisfying them, and therefore also the way of reasoning. *Need*, again, is not a simple feeling, but a feeling that results from many simple feelings grouped in a certain order; and here we have the reason of that motion which likewise unfolds itself in manifold acts.

1512. 3.° The reals, moreover, excite reasoning and an action which extends beyond perception, when they are linked together by virtue of the laws of animality and of the animal instincts. Hence, when a certain image is roused, many others are roused in succession after it; and when a certain feeling is excited, others unite themselves with it, according to the same laws.

1513. 4.° When thought has proceeded so far as to conceive and propose to the will an end, then there springs up the free decree to think of the means of securing that end. In this way the activity extends; but this cogitative activity requires continually to aid itself by new reals over which thought and action pass.

1514. 5.° Not every real, even though it excite a vivid perception, is sufficient to produce consciousness, that is, to move man to reflect upon himself. To this he is moved chiefly by social language and by his needs. Indeed, in social life personal names and pronouns excite reflection to turn upon the person, and the need of this very soon arises. For example, if some wrong is done to a child, and that child takes to defending its own rights and judging between itself and its offending companion, it begins to reflect both on its own and the companion's person.

6.° Finally, since feelings last for some time, they aid thought to keep itself in act, and this forms the second part of the law which we are expounding.

ARTICLE III.

Second Part of the Law of the Motion: The Real, by its Stability, keeps the attention and the thought in lively action.

1515. No one accustomed to observe man's mode of acting will deny this fact.

But here a curious question presents itself.

We have seen, 1.° That motion is not continuous, but takes place by instantaneous changes from state to state, each of which states lasts for a little moment; 2.° That the feelings excited are preceded, or, at least, accompanied by extra-subjective movements in the fibres of the body.

Now, feeling and the change from one feeling to another are two different things. The latter can take place in an instant, but the former must have some duration. *Excited feeling*, therefore, is always a more or less enduring state. If, then, this is the case, and yet the feeling is excited in company with *changes* (movements of fibres) that are not durable, we must admit that the instantaneous changes which take place in the movement neither are the feelings themselves, nor can be the full cause of them. The fulness of this cause must come from the sentient principle itself, which endures.

1516. In the second place, we have confirmation of the

fact that there is a *non-excited feeling* which has for its term, not the movement, but the extended, that is, several *extensa* rubbing against each other.*

1517. In the third place, we can see that the movements which arise in the extended are not felt in their single instantaneous changes, because, 1.° Since the changes are instantaneous, and feeling lasts only so long as its term lasts, if it had only these changes as its term, it would not endure at all and, therefore, would not be feeling; 2.° If those changes were felt, we should never have a stable feeling, but would, in every feeling, have to feel an incessant change, and thus each feeling would be a complex of many successive feelings, between which there would remain intervals without feeling, a thing which is entirely contradicted by experience. Neither can it be said, that this multiplicity and these intervals are in every feeling without our adverting to them; because, if this were so, we should notice the intervals between one feeling and another, which would have duration, very much more easily than the feelings themselves which would have none, so that all those feelings taken together would last less than a single interval, since no duration is less than even the briefest duration. Moreover, the reason why we do not notice certain things that take place in us is because we are occupied and distracted by other more sensible things that attract and rivet to them our rational attention. Now, in the case supposed, the cessation of the feeling, which would have some duration, ought to be observable; indeed, it would be better fitted to draw and hold our attention than the feelings, which would have no duration. In fact, we must lay it down as a maxim, that "all that a man feels, and every transition from one feeling to another, are *per se* observable," and it is only an accident, due to the reason assigned, when they are not observed. Finally, it is one thing not to observe that which exists, and another to observe that which has no existence. Distraction may cause the former, but not the latter. Hence, if the dura-

* See *Anthropology*, 318-322.

tion in question did not exist, it would remain unexplained how we observe the duration of our feelings. On the contrary, sober truth binds us to say: "We observe it, all men observe it; therefore, it exists;" if it did not exist, no one could observe it.

1518. The outcome of all this is the following beautiful and important proposition, which throws no little light on the nature of animal feeling: "Sensations and the other excited feelings have not for their term the movements of the fibres, that is, the changes of position or state in the parts of the felt-extended, but have for their term the felt-extended itself. Nevertheless the movement and reciprocal pressure and rubbing of the parts of the extended have this result that the extended is felt in a new mode and with greater vividness." *

1519. Now the one thing proves the other. The fact of the duration of the excited feeling proves the impossibility of continuous motion being its term. Continuous motion has no durable state or place; therefore, it cannot be the term of that feeling. Hence we must acknowledge, that the changes which take place in the movement of the fibres may be (in their way) *excitative* of the feeling, but cannot, by themselves alone, be its term. And we must also acknowledge that the excited feeling endures, although the exciting stimulus (the change in the fibre) does not.

If the Creator had not ordained that sensations should have duration, they would not have answered their purpose, nor would the observations and experiments of the students of nature have been possible.

* Here, some one may make this objection: "You have argued that the extra-subjective body is extended from the fact that the subjective term of feeling is extended (*New Essay*, &c., vol. ii, no. 845). Now, why do you not similarly argue that motion is continuous, and, therefore, enduring, from seeing that the excited feeling is enduring?" We reply that the cases are not similar, inasmuch as there is absurdity in the second case and not in the first. Besides, in the former reasoning we know the term of the feeling and infer from it its proximate cause, that is, from the extension of the former we infer that of the latter (although the *remote* cause, the corporeal principle, may, and indeed must, be simple). In the second reasoning, likewise, we infer from the duration of the feeling the duration of its term. Since, then, its term must be enduring, it cannot consist of instantaneous changes, which have no duration.

1520. Let us now apply the second part of the law of the motion to explain some facts. It is certain that the rational principle, when once stimulated to its second acts, acquires a free movement, so that it is able to govern itself according to the ends which the will has in view. Nevertheless, if this rational movement (originally started by a real term, a need, &c.) does not find a real term as its aim, it cannot form acts of long duration, or acts easy and vivid.

1521. The facts that can be explained by means of this law are chiefly the following. It explains:

1.° Why without sensations or phantasms the mind cannot think subjectively; *

1522. 2.° Why incorporeal substances are difficult to conceive in their purity, without some intermixture of the corporeal. The reason is this. In the order of nature, we do not perceive any other incorporeal substance than our own souls, and these we perceive by way of feeling, that is, we perceive them in feeling, as the principle of it. Now our feeling has for its term the pure or corporeal extended. It is true that the intuiting principle is the first act of the feeling itself, but just for that reason it has no consciousness. It is a real, but not a *real-term*, and it is only a *real-term* that arouses attention. Now in the order of nature man has no other real term but body, and therefore the attention of the rational principle is attracted by the corporeal feeling, and only afterwards, through free reflection, considers the intuiting principle, which, however, it cannot know by a vivid and concentrated conception, precisely because it does not find in it any real which may serve it as an exciting term. Inasmuch, therefore, as we have no perception of any incorporeal substance except our own, and this does not act as an excitant term to our attention except in so far as it is united to the body, the consequence is that we are inclined to conceive and imagine other substances to be of the same nature as that which is the term of our own, namely, to be corporeal;

* So much does St. Thomas recognise this law, that although he attributes to the first man a fulness of infused knowledge, he teaches that he required phantasms in order to *consider*.

1523. 3.° Why abstracts require natural or artificial signs in order that we may think them, and reason by or upon them;

1524. 4.° Why in the ancient languages spiritual substances and abstracts are designated by terms derived from corporeal things. Thus *anima*, *animus* (cf. Greek ἄνεμος), *spirit*, πνεῦμα, are all words originally signifying corporeal wind or air, and afterwards transferred to signify the incorporeal substance. Thus also moral good taken in the abstract had no name of its own, but was called sometimes *virtue*,* which means *strength*, sometimes *honesty*, which means *beauty*, sometimes *morality* (from *mos*, which means *custom*); so likewise the word *obligation* is taken from the sensible bond and transferred to signify the force of law.

1525. The same may be said of every spiritual substance, and of every abstract, except only the verb *to be*, which was never expressed by a metaphor. And this is by itself a strong testimony from the common sense of mankind to the truth of the system which we have propounded, showing that being must not be confounded with other abstractions, inasmuch as it is the immediate and ever-present object of the human mind;†

1526. 5.° Why languages are suitable instruments of thought for the purposes both of analysis and of synthesis. Their suitableness for synthesis is seen in cases where a name is imposed to fix a group of ideas or recollections.

Thought being, by an ontological law, bound to *unity*, when it is obliged to retain several concepts or thoughts, seeks to group them, and one of the ways in which it does this is by attaching them all to a single *word*, which, being a real, keeps the attention and the memory awake and alert, whereas they would not be so if in the plurality of things there were not a *real* bond to connect and unify them. Hence the instinctive tendency, in order to keep in mind any event that we desire to remember, to mark with a *word* the place where it occurred. Since the event and the place

* See *Comparative History of Moral Systems*, chap. v, art. vii.

† See Leibnitz, *Nouveaux Essais*, &c., Bk. III, chap. i, no. 5.

have no natural or essential connection, we make use of a *sign* that recalls both. This rational instinct not only answers the purpose of transmitting those our memories to posterity, but also of rendering them present to ourselves; hence we find it more active in the primitive men, whose language was still poor, so that they had greater need to impose such names. Thus Agar styles the well where the angel of the Lord appeared to her, "Well of the seer." * In like manner Abraham gives to the mount of sacrifice the name of "The Lord seeth" (*Gen.* xxii, 14). Jacob called the place where he had the vision of the ladder, *Bethel* or "The House of God" (*Gen.* xxviii, 19). To another place where he had a vision of angels, and where he had said, by as it were a spontaneous expression of feeling (which shows the instinct prompting external utterance): "These are the tents of God," he gave the name *Mahanaim*, which means *tents* (*Gen.* xxxii, 2). In the same way, the wells which the patriarchs caused to be dug were named from the events that gave occasion to their being dug and the feelings with which they themselves were at the moment animated (*Gen.* xxvi, 20-23); and throughout the whole of *Genesis* we find very frequent mention of names being given to places from remarkable events. Impelled by the same rational instinct, men gave the stars names in commemoration of some hero or some event that they desired to keep in remembrance after he or it had passed away and ceased to be or to act on them as real. They attained their purpose by connecting such hero or such event with two reals, of which the one, with its sublime aspect, always made a strong impression upon the eye, and could not, like earthly monuments, decay by time; the other upon the ear, and was the name transmitted to succeeding generations. Hence Giuseppe Bianchini says, with much truth: "We may affirm that the two globes, the terrestrial and the celestial, are the two oldest books in profane literature. In the

* *Gen.* xvi, 14.—So also to the angel who had appeared to her, or rather to God, Whom the angel represented, Agar gave the name of *Seer*, designating Him from His *action*, or manifestation.

various names of its provinces and seas, the terrestrial preserves a very faithful catalogue of various nations that have inhabited, and of several princes that have ruled it: and the celestial, in the very ancient images outlined upon it before the age of Homer and Hesiod, is a most evident monument of enterprises and their leaders, of arts and artificers, transmitted to the knowledge of posterity."*

1527. We may say that every word is a synthesis, since it rarely happens that a word signifies a single concept. This we see in the case of synonyms, which, although they agree in a principal concept, awaken many others which are observed with difficulty and only by the most clear-sighted observers, such, for example, as Tommaséo, and yet are felt by the generality of men, who seldom or never fail to perceive any impropriety of expression, although they are usually unable to say exactly where the impropriety lies, and if they try to say it, they are often wrong, and if they write, they fall into some impropriety themselves. Words, therefore, render this service, among others, to thought, that they give unity to certain *pluralities* of concepts, which pluralities, not being a real, require a real sign to retain and mark them.

1528. All things, therefore, that are not *reals acting* on man, viz., (*a*) Incorporeal substances, (*b*) Abstracts, (*c*) Multiples, (*d*) Past reals, such as facts belonging to history, and, therefore, no longer *acting* on man, (*e*) Reals at a distance, and, therefore, likewise not acting, &c., &c.—all these things, I say, require *real signs*, in order that man may be able to keep and concentrate his attention on them.

1529. In the case of absent reals, the proof of what I say is seen in the desire which men show to have *portraits* and *keepsakes*, to make them remember in a vivid way the persons or things that they love, but cannot always have near them.

1530. And as to *incorporeal substances*, they may be considered as absent things, inasmuch as they do not immediately act upon us as reals; hence the propensity so gene-

* *Istoria Universale*, Introd., chap. iii.

rally felt towards images and symbols as being needed to represent those substances to our veneration; and, in fact, the reason for all external worship. Therefore the Iconoclasts were merely pandering to vain subtleties, and opposing the laws of human nature.

1531 Again, just as every word is a *synthesis*, so every proposition and series of propositions is an *analysis*. That thought, in order to analyse and, especially, in order to abstract, must make use of signs and particularly of words, which, of all signs, are the most suitable and natural, is plain from the fact we have just stated, namely, that plurality is not a real. Now analysis does nothing but decompose one into many. The very fact, therefore, of the mind setting itself to bring back unity to *plurality* makes it necessary for it to have signs to which it may bind its attention, so that this may concentrate itself on the single parts, and, at the same time, embrace them all in such a way as not to forget that they are parts of a whole. This purpose is admirably served by language, an instrument at once synthetic and analytic.

1532. By the invention of language, therefore, man, 1.° satisfies a need of his thought, and, therefore, language is not invented merely to communicate one's thoughts to others, but also to fix one's own thoughts, to direct, rivet and concentrate one's attention;

2.° He satisfies the need which he feels of communicating his thoughts to his fellows, by furnishing them with the same easy means of thinking which he employs in his own case, or, in other words, of directing and concentrating their attention.

Herein we must admire the wisdom of the Creator, Who has not left the invention of language to the mere free calculated action of human thought, but has placed in man an instinct for the purpose, as we shall show when we come to speak of those *psychological* laws of thought that correspond to the ontological ones, and moreover has Himself positively communicated to him the first elements of language.

1533. By the same means are explained the laws of memory, in which there occur some facts not easy of explanation.

1.° In the first place, it is difficult to explain how cognitions are preserved in us when we are not thinking of them. Is it merely that we do not any longer turn our attention to them, as happens in the case of a picture which, although it be continually present to us, we do not see unless we turn our eyes to it?—This does not suffice adequately to account for the fact in question; because, if the preservation of cognitions in us without our thinking of them depended only on our not giving attention to them, then we ought to be able to recall anything whenever we chose, even as we can at any moment look at a picture hanging on the wall before us. The fact, on the contrary, is that there are many forgotten things which we either cannot recall at all, or else recall with difficulty. In this case we must conclude that our attention is not activated or held by any real, that is, by any image or other feeling, and as a consequence does not know where to turn, or where to fix itself, in order to find the information or cognition which it is looking for in the soul. When, therefore, the images or feelings to which any desired piece of information or cognition is linked cease to exist, then such information or cognition sinks into uniform universal being, where it lies concealed; which is what the ancients called potential or virtual cognition. Nevertheless, it is not lost therein for ever, but emerges whenever the force of attention succeeds in seizing an image or a real feeling to which that cognition is linked in the instinct of the attention itself. Then the cognition clothes itself, so to speak, with that real, or more properly speaking, is marked by it. Hence the cognitions that are altogether lost, and of which there is no remembrance, may be called *non-marked cognitions*, that is, cognitions not distinguished in ideal being.

1534. 2.° The second thing difficult to explain in regard to memory, is why certain cognitions or pieces of information reappear in our thought of their own accord, without

our wills, or even in spite of them, and thus sometimes give occasion to what we call distractions, temptations, &c. The reason is the same as before. Granted the principle that the notions and the cognitions that lie within us attract and hold our attention whenever they are marked by or linked to something real, *e.g.*, to images, feelings, external bodies, &c., and granted also that the reals to which they are linked present themselves to us without, or even against, our wills, being dependent upon the play of our animality and the animal powers; it is evident that many obliterated notions must return to thought of their own accord and attract our cogitative attention, according to the laws of instinct and habit, and must sometimes even do us violence, that is, when they have more power to draw and hold our attention than our wills have to restrain it. How great the force and independence of imaginings and animal feelings are, is shown by every day experience. This is a great humiliation to man, who, as man, lies in the rational principle; inasmuch as this principle, that is, man himself, is seen to be so enfeebled, that, whereas it ought, for every good reason, to lead and command, it follows like a bond-slave and obeys, vainly recalcitrating and struggling.

1535. 3.° The third thing is, why some cognitions are easily recalled to thought, and others with difficulty. Seeing that the presence of *real* feelings, which mark cognitions, does not entirely depend upon us, we can easily understand this fact also. The truth is, that our animal movements and feelings are neither entirely within, nor entirely beyond, the power of the rational principle. This principle can do much in them, but not all that it wills. Hence it is sometimes easy for it to arouse those feelings in itself, sometimes difficult, and sometimes altogether impossible.

1536. If it be further asked according to what law this ease or difficulty is graded, confining ourselves solely to the case of reminiscence, we reply, 1.° That man, when he thinks, has always reals present to him, that is, images

and feelings; 2.° That present reals are more or less closely linked to absent ones; 3.° That this link consists in a *sign* or else in an *organic nexus* (whereby one sensible movement is a continuation or an immediate effect of others), or again in a consensuous nexus, due to *instinct*, *habit*, &c. In order, therefore, that the rational principle may be able to rouse and actuate the feelings it seeks, these must have, 1.° a connection with those actually present, and 2.° such connection as will allow of a more or less ready spontaneous transition from the one to the other. This latter condition enables the rational principle more or less easily to repristinate the animal movements and the annexed feelings which it seeks, as signs of the cognitions it wants to recall to memory.

CHAPTER XXVIII.

COSMOLOGICAL LAW OF HARMONY OF ACTION IN THE RATIONAL PRINCIPLE. HOW THIS LAW IS MIXED UP WITH PSYCHOLOGICAL LAWS, AND HOW IT IS DISTINGUISHED FROM THEM.

ARTICLE I.

The Law of Harmony which the Rational Soul obeys is Cosmological in so far as it springs from the intrinsic order of Animality.

1537. By cosmological law of the action of the rational principle we have understood that law which is imposed on its actions by created things, by the world, or by what Fichte would call the *non-Ego*. According to this concept of the world, the rational principle itself is excluded from the world and opposed to it, although this same principle, this *Ego*, forms also a part of the world, the implied denial of which fact is another error of the Fichtean system.* Nevertheless, since the intellective soul has in the idea the mirror of the real world and also of itself, it is not altogether absurd to consider it from two points of view, that is, as known and as knowing, as part of the world and as opposed to the world. Thus the nature of the world, including in it the soul as the term of cognition, is the source of the cosmological laws according to which

* By placing the *Ego* in opposition to nature or the world, Fichte took the first step toward that deification of man which was carried out more explicitly by his successors. Indeed, from the supposed opposition between the *Ego* and the world they drew the conclusion (false, certainly) that, therefore, the *Ego* is different from the world, is outside of nature. In this we can perceive that refined pride by which man speaks of all things in the tone of a judge, forgetting that he himself is one of them.

the rational principle (the soul) operates, and the nature of the soul or rational principle is the source of the corresponding psychological laws.

1538. But here the question arises, whether animality belongs to the knowing soul to which it furnishes the immediate matter. We must answer this question before we begin to speak of the law of harmony, in order that we may know whether this law, in so far as it is cosmic, must be derived not only from the order of external things, but also from the intrinsic order of animality, as forming part of that world which is considered as opposed to the rational principle.

We reply that animality, as such, does not belong to the knowing soul, which has the nature of principle, whereas animality is related to it only as term, in so far as it comes within the fundamental perception. Hence the harmony which the rational principle finds in its term, and in which itself participates, comes to it not only from the harmony existing in the external things differing from animal feelings, but also from the harmony that belongs to animality itself.

1539. The ancient thinkers of the Italic school were aware of the existence of the law of harmony in the operations of the rational principle; but they supposed it to be a purely *psychological law* rather than a law, in part at least, *cosmological*. The reason of this was, that they were unable to conceive the purely intellective soul, and did not even understand the nature of the soul. Making their start in philosophic thought from what is most obvious to men, viz., matter and the sense, they fixed the eyes of their minds upon the sensitive soul and reduced all acts, even intellectual ones, to it as their principle. Moreover, in the sensitive soul itself, they had not succeeded in distinguishing the *principle*, to which alone the term soul applies, from the *term* which consists in the extended and the materiated. Hence they attributed to the soul's own self what came to it from its term. And since it is in well-harmonised sounds that order is most sensibly and vividly felt, they gave to

every order and harmony the name of *music*, generalising the meaning of this word, which was originally given to the delight which the ear receives from concordant sounds. This they did in accordance with the laws we have described as governing the invention of words.

1540. Hence the fact of music having been attributed, first to the soul of the world, and then to the other souls, which by partaking of that soul were constituted and individuated, as may be seen in the following passage from Macrobius which sums up the ancient doctrines. We need not, he says, be surprised that *music* has so much influence upon men no less than upon beasts (observe how his attention was directed to the sensitive soul), *Inesse enim mundanæ animæ caussas musicæ, quibus est intexta, praediximus. Ipsa autem mundi anima, viventibus omnibus* (he is speaking of living things in general, not specially of rational beings) *vitam ministrat* (he says *life* not *reason*).

"*Hinc hominum pecudumque genus vitæque volantum*
Et quae marmoreo fert monstra sub æquore pontus."

*Jure igitur musica capitur omne quod vivit; quia cœlestis anima, qua animatur universitas, originem sumpsit ex musica.**

1541. Now when we know that the harmony which secretly directs the rational principle as well as the sentient principle is derived from their term, and not contained in themselves, we are able to overthrow this error into which the ancients fell by attributing the origin of harmony to the soul alone, which is the principle—an error which was carried so far that many of them declared the nature of the soul to consist in harmony itself.†

* *In Somnium Scip.*, Bk. II, chap. iii.

† See the Appendix on *The Opinions of Philosophers with regard to the Nature of the Soul*, inserted at the end of the third volume of this work.

ARTICLE II.

The Law of Harmony according to which the Sensitive Soul acts is in large measure Psychological.

1542. Animality, therefore, is not the rational principle, but stands to it in the relation of term, and, therefore, belongs to the *world*, in contradistinction to the rational soul. The rational soul, however, shares in the harmony contained in animality.

But if we speak of the sensitive soul, which is the immediate principle of feeling, it may be asked whether the harmony found in animality proceeds from the soul, that is, from the *sensitive principle*, or from the extended which is its term. If the ancients had put the question in this form, their error in attributing to the soul alone the origin of harmony would have been smaller, because, as a matter of fact, harmony comes, at least in part, from the nature of the sensitive soul. But they confounded the sensitive soul with the rational, attributing to the former the nature of the latter. Now our aim is to explain the law of harmony with respect to the rational soul, and to show that in this respect the law is cosmological, on the simple ground that the sensitive soul, which is *principle* with respect to the extended, its proper term, is *term* with respect to the rational principle, which perceives the sentient in the felt, and thus the sensitive soul belongs to the world as opposed to the rational principle.

1543. Let us see, then, how the sensitive soul is partly the source of the harmony found in animality, although we shall have to speak of this in greater detail further on.

In the first place, the *continuous extended* acquires unity, and along therewith its continuous nature, from the simplicity of the sensitive principle.*

* The sensiferous, likewise, has continuous extension (See *New Essay*, &c., vol. ii, no. 858): whence does this come? We say from the *corporeal principle*, which shows itself to be simple from the very fact that it has the continuous extended as the term of its action. Just, therefore, as we infer the simplicity of the sentient principle from the fact of the term of its *passion* [πάθος] being extended, so we may legitimately infer the simplicity of the corporeal principle from the fact of the term of its *action* being extended.

In the second place, the unity of time, as we have seen, lies in the simplicity of the sentient principle.

Now in felt extension as well as in time the harmony of animality is apparent, inasmuch as felt extension gives rise to the *multiplicity* necessary for harmony, and time gives rise to *number*.

1544. In fact, multiplicity and number could not be if there were not a simple being to which and in which several unities were present, since every unity, as such, if it is present to itself, cannot be present to the other unities; for each unity as such ends in itself, and cannot go beyond the limits of its own being. On the contrary, one and the same sensitive principle is susceptible of several feelings, both simultaneous and successive, so that we find in it (and in a more eminent and different way in the rational principle) multiplicity, number, and succession.

1545. Since, then, harmony results from *unity* and *plurality*, it follows that unity is posited by the soul, and therefore is a *psychological* element, while plurality is given to the sensitive soul by its term, and is, therefore, a *cosmological* element. Thus we may say that the harmony in the sphere of animal feeling is in a certain sense a union of nature, and as it were a birthday embrace, between the soul and the world.

1546. Now unity is properly the form of the beautiful, as St. Augustine observes.* Hence the conclusion that the *formal part* of harmony is *psychological* in its nature, the *material part cosmological.*

* *Cum autem omne quod esse dicimus,* IN QUANTUM MANET DICAMUS (let us observe, in passing, that the Saint recognises duration as the condition of being), *omnis porro pulchritudinis forma unitas sit* (*Epist.* xviii, 2).—St. Augustine lays it down that there is no beauty except in the rational principle, which is equivalent to saying that he holds the beautiful to be essentially objective. Then he rises to the question of the eternal norm of the beautiful (*De Vera Relig.*, chaps. xxx-xxxiii; *De Musicâ*, Bk. VI, chap. xiii; *Epist.* xviii, 2). Herein we agree entirely with this great master, and, therefore, we distinguish between *beauty* and *harmony*, or the harmonious concourse of a plurality of things—a concourse that is met with even in animality, and is founded on the simplicity of the sensitive soul, which embraces the manifold. Now this sensible harmony itself serves, so to speak, as matter to the rational principle which contemplates it in the object [or ideal being], and thereby brings it up fully to the nature of beauty.

ARTICLE III.

Distinction between what is Pyschological and what is Cosmological in the Law of Harmony followed by the Sensitive Soul.

1547. But how happens it that, in the felt, plurality is reduced to unity? Whence comes this unity? What part in its formation is played by the principle, and what by the term?

The term of corporeal feeling is one continuous extended, not any more; because if the continuous extended were divided into several *continua*, the sentient principles would be correspondingly multiplied. Here, then, we have at least a unity of continuity.

1548. But since the continuous has limits constituting a kind of plurality, the question arises: Whence come the limits that determine the size and the figure of this single continuous?* The reply is, that these limits do not come from the sentient principle, which in itself is indifferent to any extension and figure in the felt; consequently they come from the external cosmical force. We have already said elsewhere that there is an extension (whereof *size* and *figure* are conditions or limits), as also a sensiferous force, which is extra-subjective,† and whose principle must certainly be unextended (corporeal principle).

1549. Besides the multiplicity of *size* and *form* which appear in the limits revealed by acquired sensations, animality exhibits the manifold in the sensations themselves. Hence arises another question: How is it that one and the same continuous extended can admit of variety of sensation?

1550. The reason of it, we have said, is that the identical extended fundamental feeling is not altogether uniform in quality, but has differences in it and, so to speak, variegations. That such must be the case, may be conjectured from the different degree of excited sensitivity belonging

* Observe that these limits do not lie in the fundamental felt, that is, they are not felt in it, but are felt afterwards by means of acquired superficial sensations (See *Anthropology*, no. 155, &c.).

† *New Essay*, vol. ii, nos. 882-885.

respectively to the different members of our body and to the different sensorial organs; although I do not think that this difference can be distinctly adverted to, owing to the nature of the fundamental feeling, which has little or no aptitude to attract and hold our intellective attention.* Since one part is more sensitive to excitation than another, or is sensitive in a different way, it seems that there must be differences in the primitive feeling, in this sense, that the several parts are felt each in a degree and a manner different from those of the others. For example, I believe that the optic nerve has a fundamental feeling different from that belonging to the other sensitive parts of the body, and that this feeling is no other than that of *black*. Indeed, to define black as consisting merely in the absence of colours is to confound the cause of the visual sensations with the sensations themselves. It is an undeniable fact that, when all external stimuli are removed from the retina, there remains the black. We have black when light is entirely absent. But the stimulating body called light is not the sensation which it produces. Moreover, the sensations produced by the stimulus of light are partial sensations or special modifications of a previous fundamental feeling, which can be nothing but the feeling of black. In order to be convinced of this, we have only to go into a perfectly dark place and there observe the kind of feeling which we experience in our eyes, and compare this with what takes place in another part of the body, say in the nape of the neck. If we closely attend, we shall soon perceive that in the eyes there is the feeling of black; we shall feel as if our eyes were covered with a black cloth, whereas there will be no such feeling in the nape of the neck. Nor can this be attributed to a reminiscence of coloured sensations previously experienced, but which are now absent; because if we pay close attention we shall see that the feeling in question is in the eyes independently of all remembrance or reflection

* Another difficulty in testing this by experiment arises from the fact that the *extended feeling* in man is, perhaps, never altogether separated from *excited feeling*, since, in man also, everything is constantly in motion.

on our part. I think that something of the same kind may be said with regard to the acoustic nerve, and that there is the feeling of *silence* (the special fundamental feeling proper to that nerve), so that *silence* (considered merely as feeling, and prescinding from its external occasion, which is certainly negative) is not altogether a negative thing, but has in it something positive that furnishes the basis to all acoustic sensations.

To the question proposed, therefore, I reply that the variety existing in the extended feeling must be due to the difference of texture in the felt continuous, which may have in it greater or lesser intervals, may be composed of molecules of different forms, or of molecules some of which adhere to or press against those next to them with greater force than others, or again, of specific molecules more or less involved, and to other similar conditions of the tissues from which the various organs result.

1551. The multiplicity observable in the feeling of excitation suggests another question, viz., Whence comes the variety in the different parts of this feeling, a variety which is evident, since it constitutes the variety of the figurate sensations differing in kind and intensity? Does it come from the soul, or from the world?—We have seen that these diversities of excitation in the felt correspond to the movements of the molecules composing the felt, and that these movements are determined partly by external stimuli and partly by the activity of the sensitive principle itself; for which reason the cause of these various movements must be called partly *cosmological* and partly *psychological—cosmological*, in so far as it overcomes the *inertia* of the soul, *psychological*, in so far as it obeys the law of *spontaneity* inherent in the soul itself.*

1552. But these movements are not the sensation itself; let us therefore speak of the latter. We must distinguish, 1°. The mode of the sensation, consisting in extension and in the conditions proper to the extended, which consist in

* On the soul's two laws, of inertia and spontaneity, see *Anthropology*, nos. 439-483.

its limits, viz., the *size* and the *form;* 2.° The extra-subjective or cosmological exciting cause of the sensation, which cause consists in the *sensiferous* force and in the internal *movements* of the felt-extended; and 3.° The pure sensation, which is either *still* and primitive, or else *excited.*

To constitute the *extended mode* of the sensation and of the various feelings, the cosmological action, of which, as well as of the soul, that mode is the term, undoubtedly contributes.

The extra-subjective cause, that is, the corporeal principle or the sensiferous force, is also cosmological action.

But *pure sensation* belongs to the sentient principle in such a manner as to be the *act exclusively proper to it,* and, therefore, belongs entirely to the essential virtue of this principle. Consequently it is altogether subjective, altogether psychological.*

The cosmological action, therefore, is a cause contributing to posit *in esse* the act just spoken of, and, therewith, the sentient principle itself, the soul, and to determine that act in respect to its mode, viz., extension; but, in ultimate analysis, the act of feeling is an act of the sentient principle, which is the sole subject of all sensations.

Pure sensation, then, depends on the external world as on its term; still it is not the act of the external world, but of the soul.

1553. Now pure sensation, which, in order to designate sensation as abstracted from extension, I shall call the *feel of the sensation,* changes even though the size and shape of the extended remain the same, as we see in the sensations of the various organs, or even of the same organ. Thus, not only has smell a different *feel* from colour, but even in smell and colour themselves there are differences of species and degree. Now although the feel of the sensation varies in species and degree on account of differences in the extended term and in the internal movements that take place in it, nevertheless every one can see that this feel—a positive quality of the

* *New Essay,* vol. ii, nos. 878-895.

sensation, be it remembered—is neither the extension nor the movement, but is always, notwithstanding its variations, the act of the sensitive principle alone. This, so far as regards extension, is plain from the fact that a sensation may vary in feel without varying in extension. For example, the same extension may be at once the term of the visual and of the tactile sensation; nevertheless, these two sensations are widely different, that is, have a widely different feel. And as to motion, we have already shown that the feel of the sensation excited by the movements of the sensorial organ has no resemblance to those movements. They are many, but the feel of the sensation is one; they are instantaneous (every change is instantaneous), but the feel of the sensation has duration, otherwise nothing would be felt. Therefore, the feel of the sensation is entirely due to the sensitive soul, even as the act is due to the subject, and, consequently, it is of an entirely *psychological* nature. But it remains to be seen how the feel can vary with the difference of organs, of their movements and the number of these movements.

ARTICLE IV.

Are the Varieties in the Feel of Sensation due to Cosmological, or to Psychological Laws?

1554. To find out and describe the truth on this point is a matter of peculiar difficulty owing to the fact that our attention and our rational operation interfere with our sensations in such a manner as to divide, in their way, that also which in sensation itself is united. Still we shall not pass by any difficulty without endeavouring to solve it.

The rational principle converts the sensiferous into a being, and detaches it from the sense. Without the action of this principle, the sensiferous would be merely an agent felt by and in the sentient, would be, not a being, but only the action of a being. But since the rational principle converts into beings the sensiferous terms of sensitive per-

ceptions, it comes to pass that every organ of sense moves in a world of its own. Each of these worlds is absolutely separate, except in extension, from each of the worlds belonging to the other organs, and not only separate, but also dissimilar, so far as the specific feel of sensation is concerned. And if the rational principle, confronting these different worlds with each other, makes one out of them all, it does so by way of analogy, and not from finding any true similarity between them; it does so, not because they agree in the quality of what we have called the sensible feel, but because they agree in number, in space, &c., that is, in things not belonging to pure sensation. In the identity of these conditions which do not enter into the constitution of sensation, the sensitive principle, by reason of its simplicity, unites and harmonises them. Thus, when the eye directs the hand to touch an object, the visual sensation (the extended as felt by the eye) is entirely different from the tactile sensation (the extended as touched by the hand); but the visual sensation lends the same service to the hand that a very accurate chart does to the traveller, who guides his steps by it. It is not easy to observe this, because between the chart and the visual sensation, there is this most notable difference, that the chart is perceived as an exceedingly diminutive space in comparison with the space which the traveller has to traverse; whereas the visual sensation presents the object with dimensions that seem the same as those felt by the hand in touching, although they are not so in fact, since the sensation of the optic universe is, in reality, not more extended than the retina which contains it (I mean the retina as perceived by the touch). But the difference lies in this, that, when I see the chart, I see at the same time all that is beyond it, all the space that lies outside of its limits, for example, the immense space of the plains, of the mountains, of the heavens, and moreover, beyond that space, I can imagine another in comparison with which the chart becomes almost nothing; and yet on this most diminutive chart I find marked and distinguished those plains, mountains,

seas and skies which I see with my eye; and as I go along I see the same things twice, once on a small scale on the chart, and once on a large scale in nature. Now this little representative and that great representative are seen by the same organ, the same eye, so that with the aid of the single sense, I am able to compare different parts of its sensation. On the other hand, a very different thing happens when I, instead of comparing the size of the various parts of a sensation of one and the same sense, compare the sensation of one sense, say the eye, with the sensation of another sense, say the touch. Then it is no longer different parts of the same world that are compared, but two different worlds. The world that is seen is compared with the world that is touched, because in the total sensation of the eye, which I call the range of vision, is contained the whole optic universe, that is, all that the eye can see at one glance, and the memory and imagination with many glances. In this optical universe are contained the hand that touches and the object that is touched, both with their proportions, so that, if the object touched is smaller than the hand, it appears smaller also in the range of vision; if larger, it appears larger. Again, the hand and the object touched maintain their right proportion to all the surrounding objects seen in the range of vision. Hence the eye enables the rational principle to discern all these proportions and, consequently, to say to itself how much larger the column, for instance, touched by the hand is than the hand itself, how much larger the temple is than the column, the mountain that forms the background than the temple, and so on. Hence if a body is found equal to touching the whole of the hand, the rational principle, guided by the eye, is able to say: "This body is as extensive as the sensation of the whole hand." The reason is, that all these proportions are marked in the colours felt on the retina, as on a chart. But besides all this, besides the range of vision, which thus forms a chart, the eye sees nothing. It sees only the chart: this is its universe, and therefore it cannot compare this chart with anything greater, nor find anything greater

than it, because it sees nothing else. How large, then, is the range of vision? I answer: As large as the universe, that is, the visual universe, because, as regards said range, there are no other universes.

When, therefore, the soul directs the hand and the foot in the way marked by the eye, then the hand and the extended that it wishes to seize, and the foot, and the way that it wishes to travel, as well as the surrounding spaces, are all outlined in the visual universe, in the optic range, and these outlines are the principle of the regulated movements which the hand and the feet make at the command of the soul. Thus those signs that occupy but a very small part of the retina, but correspond most distinctly to the proportions of the hand, foot, &c., contain the principle of the movements of the hand and the foot in such a way that the soul has only to will in order, by means of those signs, to bring the hand really in contact with the object it desires to seize, or direct its steps in the way it desires to go.

It must be carefully observed, that neither the road, nor the object, nor the hand, nor the foot is in the eye, but that the hand or the foot which has to be moved communicates, by means of the sensor and motor nerves, with the brain, and that the optic sensory in which the hand and the foot are represented terminates there likewise. It must also be observed that the animal principle unifies in itself the passive feeling which is experienced by the optic sensory in seeing the hand and foot, with the active feeling of the motor nerves; and likewise it must be observed, that the movements of the hand and the foot begin with very minute movements of the brain, at command of the soul, and that these minute movements are propagated, in virtue of the law of spontaneity, to the nerves and muscles. If, therefore, we choose to say that the visual sensation occupies a very small space in the brain, we may equally say that the soul, directed or even excited by that sensation, has only to excite a very minute movement in the brain in order to impart motion to the hand or the foot, which are intimately connected with it. Now it is not difficult to

conceive how a sensation, occupying in the optic sensory a minute space as a passive feeling, should give rise to the corresponding active feeling in another minute space (at the roots of the motor nerves), or that the movements initiated in this little space should, in accordance with the law that "The animal tends to preserve and increase those movements that are agreeable to it," go on increasing until they move the hand and the foot in the direction determined by the visual sensation. This only shows the wonderful harmony which the Creator has placed in the composition of the animal.

1555. But it will be asked: "How do we become aware that the visual universe, being limited to the extension of the retina, is most minute in comparison with the real universe?"—I answer: This cannot take place through a comparison of the sizes given by the touch with those given by the sight, because those given by the touch always agree with those given by the sight, and *vice versa*, so that the two kinds are found to be mutually commensurate. In this comparison we may indeed discover to what measure given by the touch corresponds the measure given by the sight, or *vice versa;* but we could never succeed in discovering whether the one sensation is absolutely more extended than the other. For example, my eye shows me a statue at the same moment that the hand touches it. From the simultaneousness of these two sensations I can only infer that the object seen with the eye is large enough to produce a sensation of such a size as is felt in the hand, or *vice versa*. Inasmuch, therefore, as the sensations of the hand and of the eye measure one the other, they can never give discordant measures. They must always give measures mutually commensurate, and these are proportionate, not absolute, measures. How then (to repeat the question) do we come to find out that the visual sensation of a given extended occupies less space than the tactile sensation of the same extended? The question here is to discover the ratio between the space occupied by the sensation of one sensory and that occupied by the corresponding sensation

of another. Now this ratio does not exist between the two sensories, because neither furnishes a *common measure* available for measuring those two specifically different sensions; since the optic sensory does not include anything belonging to the tactile, nor the tactile anything belonging to the optic. Each sensory is limited to its own world, and when either the animal or the rational principle compares them, it finds only equality, because the comparison is purely one of analogy, a comparison not of size with size, but of proportion with proportion. We must therefore conclude that the measure of the size of the optic sensation is the optic sensation itself, and the measure of that of the tactile sensation, the tactile sensation itself. I will explain how.

The retina is related to us in two ways, 1.° As a sensory, and 2.° As a felt-extended term. The retina, while acting as a sensory, is the range of vision itself, is the visual universe: outside of this visual universe, that is, outside of the retina, there is no visual feeling. The soul, therefore, seeing through this organ, cannot compare the range furnished by it with anything else, because it sees nothing else; and although it feels nothing but the organ, still it is not said to see the organ, because the word *see* refers to the terms of vision detached and distinguished from the organ, the fact being that the attention fixes itself upon them and does not stop at the immediate felt, that is, at the retina on which they are marked and represented. Thus the retina is felt subjectively and the attention does not rest upon it as felt, but goes straight to the various colours with which it is variegated, and which, by virtue of the rational principle, man takes for so many external objects or beings. So long, therefore, as the soul feels the retina in this subjective way, as a sensory in action, it cannot compare the space of the retina with any other space, because the whole of the space given to the soul to contemplate, the whole space of the visual universe, is the retina itself. All that then exists for the soul is the retina. There does not exist the head of the spectator which contains the eye

with its retina, nor the body itself to which the head belongs, because if these things then exist for it, they exist in the retina and not outside of it.

Let us now consider the retina in its other relation to us, that is, not as a sensory, but as a felt external term. The opposition between these two relations which the retina has to us is seen when we undertake to look at the retina of the eye of another person. Then our eye acts for us as a sensory; our souls feel its retina internally, subjectively, whereas the retina of the other person's eye does not in respect to us who look at it, act as a sensory, but as an external term, felt, seen by us. The retina of the other person's eye, in this relation to us, not representing but represented, represented that is to say on our retina, occupies a very minute space in it, and becomes an exceedingly small part of our range of vision, of our visual universe, becomes an extension very much smaller than the eye which we are looking at, smaller still than the head and the body to which it belongs, and yet very much smaller than the internal visual universe felt in our retina. Our retina, therefore, as then felt subjectively, is as large as the whole space of the visual universe, whereas the other person's retina as felt by us extra-subjectively is only a most minute part of that universe. But the same thing happens to the person at whose retina we look. His retina, as a sensory in act, is the whole visual space, and our retina is a minute speck in that space. Each of us may also look at his own retina in a mirror, and then the same retina acquires with respect to the spectator the two relations of which we are speaking: as subjectively felt, it is the visual universe, as seen, *i.e.*, felt extra-subjectively, it is a most minute space in the same universe. We know, moreover, that our retina felt subjectively, as a sensory in act, and the same retina seen, that is, felt extra-subjectively, as an external term, are identical; because we observe that when we cover the retina seen by us as an external object, vision ceases, that is, the retina ceases to be a sensory in act.

Now, if we wish to measure the size of objects by means

of the touch, we find among these objects the retina; and then the comparison of the sensations of the touch itself tells us that the retina occupies a very small space in the tactile universe. We find, moreover, that the retina touched is the same as the one that acts as a sensory, by observing that when we put our hand over it, it ceases to see.

1556. Now these facts confirm what we said above, namely, that continuous space is in the sentient principle, and man measures the size of external objects simply by applying to them the space which he has in himself, that is, in which his own feeling terminates. Hence bodies receive different measures according to the different modes in which they are commensurated with the subjective and fundamental space.

1557. But since bodies, in so far as seen, do not, properly speaking, touch the eye, but are merely sketched on it by the vibrations of light, the perception by the eye is a perception of signs corresponding to the bodies, and not of the bodies themselves. Yet the size of these signs, although so small, seems equal to the size of the bodies perceived by the touch, because, as we said, these two modes of feeling have no common measure applicable to their respective sizes. What they have *in common* is simply the proportion of the parts, which is the same in the two modes, and which the rational principle alone compares.

1558. It remains, however, to inquire how it is that the space occupied by the optical sensations appears thus separate from the total space of the fundamental feeling. Indeed, if it did not appear as separate, there would be a common measure, and the space of the retina occupied by the felt would not give a separate world, but would be merely a speck in the total space of the fundamental feeling.

Now this is due to several causes:

1.° The space wherein the fundamental feeling terminates is not measured in the feeling itself, but it is measured only afterwards by the figurate and superficial external

sensations belonging to special organs. Its confines do not form part of the fundamental feeling, and its continuity has no trace of lines or figures of any kind. The confines are the superficial sensations themselves; which belong to the feeling excited in those organs. Hence it comes that, if there is a superficial sensation fixing a confine limited to the superficial feeling, the extension of this sensation is alone what is felt. It cannot be compared with the total extension of the fundamental feeling, because this total extension does not exist in that mode, does not exist for us as using those organs, which alone give confines and therefore determinate measures. Thus when we feel the diminutive space of the retina in which light has excited feeling, this space is felt as altogether isolated from the remaining superficial space of our bodies, because the excitation is in this space alone, and not in the rest.

1559. 2.° Moreover, even if it should happen that while the retina was being excited by colours, the surrounding parts were excited by their proper stimuli so that they also gave a superficial sensation, it would not follow that we should feel these sensations arranged on a single surface, because there is an interval separating the optic nerve from the surrounding ones, which, when excited, cause sensations in us. Hence the superficial sensation would show blanks separating it into several sensations each of which would measure itself, but not any of the others, because none of them would be a part of a larger superficial sensation; which, nevertheless, is a condition necessary for their being measured, since, in the case in point, parts can be measured only by their relation to the whole.

1560. 3.° Besides, owing to the fact that the sensation of colour has a *feel* very far exceeding in vividness and distinctness that of any other external sensations, the retina struck by the light would still attract to itself the attention and give a surface different from that adjoining it.

1561. 4.° Finally, on account chiefly of the interference of the rational principle, man does not stop with his atten-

tion at the subjective sensation of the retina, or even at the extra-subjective sensation, but goes straight to the external objects represented within the visual range, and thinks he perceives them directly. In this way it becomes impossible to compare the superficial sensation of the retina with the total surface of the human body, because the attention is not directed to the former, but only to the objects expressed by the signs which it presents.

1562. The second and third of the reasons assigned by us deserve some further attention. It must be remembered, that the different organisations of the various sensitive parts of the human body cause the excitations of which they are susceptible to be very different, the result being sensations of a *feel* as different as are the species of sensations belonging respectively to each of the five sensories. These sensations have no resemblance of feel to each other, for no one can find any similarity between colour, smell, taste, &c. Hence these sensories are called each by a different name. But nature has willed, moreover, that they should be separated in such a way that the sensations of any one of them should not be continuous with those of another. The sensations of one occupy a space discontinuous from that occupied by the sensations of the others; hence there is no single space embracing at once all these sensations, and in which therefore it might be seen how much space each of them occupies. Thus the extremity of the acoustic nerve which receives the impressions of the vibrating air is in a place altogether different from that occupied by the extremity of the optic nerve which receives the impressions of the light, and the same is true of the other special sensories. Neither can it be said that these nerves or sensories are continuous with parts belonging to the touch, because each is protected and clothed with insensitive parts; and even if these parts were sensitive, they would either not be all excited at one time, or, if they were, the excitation would produce a sensation so weak as not to be observed beside the very vivid sensation of the adjoining sensory. Hence the space

occupied by the sensation of this sensory would, again, be isolated, and would not belong as a part to the whole superficial space of the human body.

1563. Not only is there discontinuity between the various sensories, but also in the small spaces excited in the same sensory. When I consider how the ear distinctly hears different sounds coming from different points, for example, the sounds of the different instruments in an orchestra, I cannot but believe that not all the soniferous vibrations strike and excite the same part of the acoustic nerve. And perhaps it would be a useful thing in this connection to study the different pieces of the mechanism which compose the ear, and whose uses are not yet fully known, in order to see whether one of their ends is not to keep sound asunder and make different soniferous vibrations strike the nerve in different parts.* Physiologists explain very clearly how the sound-producing waves are prevented from being confused together, in virtue of what they call "the principle of the superposition of small movements;" but this is not sufficient to explain the phenomenon of distinct sensations, which take place, not in the aërial waves, but in the sensory. But if we suppose that the soniferous waves, narrowing and pointing themselves in something like the way that the light does when refracted or reflected in a lens, severally excite different points of the acoustic membrane; it is then clear that not the whole of the membrane is excited, but only those points that are struck, and this because the wave does not start from every point of the soniferous body, but this body, in vibrating, produces only one wave, some of whose vibrations reach the ear so as to

* To explain how several sounds can be perceived simultaneously without being confounded, some physiologists have had recourse to the supposition that the different parts of the acoustic nerve are attuned to different notes, in consequence of which, by the known law, only that part vibrates which responds to its own particular note. But this does not seem to me to explain the phenomenon in question, because,

1.° Not only simultaneous sounds of different tone are distinguished by the ear, but also sounds of the same tone;

2.° Not only tones are distinguished, but also their different intensity, their different timbre, the direction from which they come, &c., none of which things is explained by the law of attunement.

converge to a single point in it. In this respect sound would differ from light, whose rays are sent out from each point of the luminous body as from a different centre. Hence the whole of the retina is excited by the light, and its excitation differs according to the different points of the body that reflect light to it. The result of this is, that visual sensations are admirably fitted to represent in themselves the various bodies, these being drawn on the retina in most accurate proportions either in a plane or in perspective. The case is entirely different with the ear, which receives isolated sounds, because not the whole of the acoustic membrane is excited, but only those points that are struck by the soniferous vibration, the other little spaces remaining unexcited and therefore without any sensation of sound.*

1564. Our explanation of the diversities in the respective feel of the various excited sensations would not be complete if we did not add something concerning the relation existing between that feel and the extra-subjective and vibrating movements of the molecules that go to make up the nervous fibres.

In the first place, it must be remembered that the *efficient cause* of our sensations are not the movements of the molecules of the nerves, but the activity of the sentient principle, those movements being merely the *exciting cause*. Hence the same movements that are accompanied with sensation in an animate body, are without sensation in an inanimate one, for the simple reason that, although the exciting cause is present, the cause to be excited and actuated is not.

* So also taste and smell cannot represent the forms of the external bodies, because smells and tastes are not emitted from all parts of the odoriferous or soporific bodies according to any regular law, or in exact proportion to their sizes and shapes. It is not, however, absurd to imagine an animal, to which, by the disposition of the Creator, a sensation of a feel equal to that of sound, or smell or taste might serve for distinguishing bodies with the same accuracy and precision as man and the animals known to us do by means of the sight. Such an animal, which would certainly have to belong to a world and an order of things different from ours, would be so unlike any of the animals with which we are acquainted, that even the imagination can hardly figure it; because, to this animal, sound, smell and taste would outline bodies with the same regularity and precision as sight, and the result would be like to our seeing them now in a perfectly distinct way with the nose or the ear!

In the second place, *excited feeling*, as well as *still feeling*, has always an *extended* as its term, and the movements which are excited in the felt term do not break the continuity of the extension, but merely cause a displacement of molecules, which, without ceasing to be continuous, move about rubbing their surfaces against each other with more or less pressure.

This being granted, it is evident,

1.° That the motion excited in the displacement of the molecules cannot have the effect of changing the continuous extended, since this does not change (unless perhaps within its own limits, which are insensible); but it must change the mode of feeling, that is, it must render the mode in which the continuous extended is felt by the soul more vivid and different from what it was; and this difference causes the sensation to be of a different feel. In fact, the feeling, as we have said before, has not, as its immediate term, motion itself, but the extended internally moved. Hence the movement of the molecules cannot be felt in each special sensation, but the extended itself must be felt, since the excitant movement does not enter into the sentient principle, which, on the contrary, is constantly the cause of the unity of the felt, that is, of its continuity. To say the same thing in another way: The law of (animal) sensitive activity is such that it produces a *continuous* feeling. Now in the continuous there is no sensible movement, because in order that the movement should be felt, it would be necessary to divide the continuous, that is, to know the confines of the parts that move, and so to distinguish these parts; whereas, in the continuous the distinction of the parts and their confines is abolished.

1565. 2.° Hence it is that many movements near to each other in time in the same organ do not produce many sensations, but one sensation only. The most they can do is to make the feel of the sensation change according to the number of vibrations communicated to the organ while the sensation is being formed, as we see in the case of musical tones, which are so many sensations of a specifi-

cally different feel, varying according to the number of the vibrations of the sound-producing body, which number of vibrations must be matched by a similar number of shocks or vibrations in the elastic molecules of the sensory organ struck by them.*

1566. But supposing that 24 vibrations of a sonorous body produce the note *do*, the reason why it requires 27 to produce the note *re* must be looked for in the special nature of the constitution of the acoustic sensory, and still more in the nature of the sensitive principle, which is the producer of that sensation. Therefore this reason must always be partly psychological and partly cosmological.

The same must be said of the reason why between the first three tones (always supposing *do* to be produced by 24 vibrations) there is a difference of three vibrations; whereas between *mi* and *fa* there is a difference of only two, and in this case the ear itself discerns that there is between these three tones a less interval than between the others. The same also applies to the reason why between the last three tones there is a difference of four vibrations, and yet the ear does not discern, between *sol* and *la* and between *la* and *si*, except a tonic interval equal to that which it discerns between *do* and *re* and between *re* and *mi*.†

1567. Summing up, then, what there is of a psychological nature in animal feelings, in other words, in those

* The ratio between the numbers of the vibrations of the seven musical tones, beginning with *do*, is as follows: 1, $\frac{9}{8}$, $\frac{5}{4}$, $\frac{4}{3}$, $\frac{3}{2}$, $\frac{5}{3}$, $\frac{15}{8}$, or in whole numbers, 24, 27, 30, 32, 36, 40, 45.

† It is usually said that a perfect and well-trained ear can distinguish as many as 43 tones in an octave, and that, if these were equally distributed among the 48 vibrations which we suppose to be in the octave of *do*, they would be distant from each other $1\frac{5}{43}$ of a vibration, which shows that the difference of a single vibration could not be distinguished. Nevertheless, if we give *do* 24 vibrations, as we have done, and increase these by one, we have *do diesis*, which is very easily distinguished; and this is a new proof that the reason why in the last notes of the gamut the difference in the respective number of their vibrations cannot be perceived unless this difference be greater than $1\frac{5}{43}$, is that in the whole octave there are only 43 distinct tones, and at the beginning of the scale the difference of a single vibration is perceptible, so that the three last *diesis* have a difference in vibration of $1\frac{1}{2}$, $1\frac{2}{3}$, $1\frac{7}{8}$ respectively. And even if we calculate by giving *do* a different number of vibrations, the result is the same, viz., that the difference between the distance of the first three tones and that between the distance of the last three, if taken by itself alone, is imperceptible.

elements which the soul supplies by its own activity to the harmony found in feeling, we say that these elements are, 1.° The unity of space, 2.° The unity of succession, 3.° The unity of multiplicity, and, hence, the form of the harmony found in animality; and 4.° The *feel* of sensation.

CHAPTER XXIX.

CONTINUATION ON THE COSMOLOGICAL LAW OF HARMONY. HOW HARMONY COMES TO BE FORMED IN ANIMALITY.

1568. But we must enter more deeply into the inquiry as to how harmony springs up in animality, because although we have already indicated the elements of it, and the origin, psychological or cosmological, of each of them, still we have not explained how it arises and is formed.

Time and space are, so to speak, the seat of the multiplicity that occurs in the animal feeling, and to this multiplicity the soul gives unity. But there would be no harmony if there were not delight, and this delight must be sought for in the *feel* of the sensation. This, however, is not sufficient to complete the concept of sensible harmony, because each particular sensation has its own proper *feel*, but harmony results only from several sensations combined. It is from the soul that the agreeable unity of these various sensations comes. In order, therefore, that there may be harmony, it is not enough that the soul give its own harmony to space, viz., continuity, and to time, viz., duration; it must also give unity to the multiplicity of the sensations (whether they be of the same or of a different *feel*),* that arise within the still fundamental feeling. And even this is not all: in order to give rise to harmony, the soul must impart to several different sensations, not indeed any sort of unity (for it always necessarily gives some unity to the sensations of which it is the identical subject),

* Sensations of the same feel are distinguished only, 1.° By the difference of the space which forms their term in the still fundamental feeling; 2.° By the difference of time, if they are successive; 3.° By the difference of intensity or gradation.

but a *pleasurable unity;* and this is the unity that we have to explain, distinguishing it from that unity which, owing to the identity of the sentient subject, never fails.

1569. Now in order to see clearly what this pleasurable unity is, and whence it results, we must ascend to those universal laws (ontological and cosmological) which govern the actions and passions suitable to every substance, laws which apply equally to the sensitive and to the rational principle. We shall detail these laws in the following articles.

ARTICLE I.

On the Proper Action of Beings.—First Law.

1570. The first law may be thus enunciated: "Every being loves that act which it has once begun, and feels pain if it finds itself prevented from completing such act; whilst, on the other hand, it feels pleasure if it can reach that completion to the fullest extent attainable by its free movement."

1571. We say: "Every being loves that act which it has once begun," because if it has not already started on an act, it would receive no pain from not performing it. It would simply not have the pleasure which every act of a sensitive being contains by its very essence.

1572. We say: "To the fullest extent attainable by its free movement," because when a being is engaged in performing an act, its motion is limited, both as to kind and degree, by its own virtuality, and, hence, there is a natural termination in which the motion comes to rest.

1573. By applying this law to the sensitive principle, we find that the explanation which we have formerly given of pain falls under it. The animal principle, being naturally bent on positing the fundamental feeling in the fullest manner that is possible for it (vital instinct), feels uncomfortable in proportion as it finds itself prevented from so doing; and this discomfort is pain.

ARTICLE II.

On the Proper Action of Beings.—Second Law.

1574. The second law may be thus expressed: "The act which a being has once begun is sometimes multiple through succession, namely, is composed of a series of links, which may be considered as a single act by reason of the unity of the being which displays its activity in several powers communicating with one another. In this case the being tends to go through the whole series of these links to the very last, and feels pain if it is stopped in the process."

1575. Let us give an example of this law, taken from the operation of the rational principle, to which the sensitive principle is united and subordinate. The rational principle has an act composed of three links: 1.° Judgment, 2.° Affections, 3.° External movements; and sometimes of four: 1.° Judgment, 2.° Affections, 3.° Decrees, 4.° External movements.

The activity of this principle, therefore, does not usually stop at simple judgment, but in consequence of the judgment (link one) produces affections toward the thing judged good, bad, &c. (link two). And it does not stop here, but adds decrees and consequent external operations; or else the affections produce instinctively the corresponding movements in the body (link three). Among corporeal movements there are those of vocal sounds, and this is the reason why man is inclined to accompany any strong feeling with an emission of the voice, as the natural completion of his sensitive activity when brought into motion.

1576. These utterances, then, being closely linked with the thought and the affection as their ultimate effects, become natural external signs, by which other men who experience the same thing can tell what any particular individual is thinking of and feeling within him. But before they pass to perform this office, they are the spontaneous and natural completion of the sensitive and rational act

which tends to complete itself as far as ever it can. This is seen to evidence principally when man, under the influence of a strong feeling, bursts forth into some exclamation or perhaps expression which, properly speaking, has no connection with his thought or feeling except in so far as it is its last natural vent. A man seized with a fit of anger will utter a curse, an imprecation against something quite different from what excites his wrath, or he will blurt out some ugly or high-sounding word even though not conveying any definite meaning; but more frequently, in order to vent his feeling by saying the greatest thing he can find, he will make use of the name of God. Thus, in Hebrew, the word *God* was added as a superlative to all words. For example, "Mountain of God," "Prince of God,"* &c., meant "a very high mountain," "a great prince," &c. A similar mode of speaking is common among the Arabs and other Orientals,† and we meet with it even in Euripides.‡ This is the origin of the oath and of those exclamations which are uttered almost instinctively and without reflection, like the words *Pol*, *Edepol*, *Jupiter*, &c., in vogue among the ancient Latins. So strong was man's propensity to use the name of God, that, to check him from taking so august a name in vain, a positive prohibitory law became necessary. In the same way, the saying of some particularly great thing acts as a relief to the feelings, as, for instance, when we exclaim in English, "Thunder!" "Thunder and Lightning!" "By all the Powers!" &c., &c. And since to swear by the head of any one, or indeed by any creature, is, in a sense, to deify it, this also had to be forbidden. It must be observed, that these outbursts which manifest themselves in vocal emissions belong to the rational principle, of which the sensitive principle is as it were a continuation; and this is the reason why, whatever be the word or expression used, the person uttering it always means to say something, and not merely to make a

* *Gen.* xxiii, 6; *Psal.* xxxv, 7; lxvii, 16, &c.
† See Schultens. Not. ad Haririi Consess., iv, no. 76.
‡ Euripid. Orest., v, 1172.

noise: he means to utter and indicate something unusually great, even when the utterance has not, by itself, any precise signification. In this latter case, the word or expression is newly invented on purpose to complete the act of that thought, which cannot bear to remain shut up in the mind, but must make itself sensible, link itself to a real, that it may thus become more vivid and more consistent to the subject of it. Such indeed, as we have seen, is the office performed by imaginary *reals* or, in general, *sensibles* —viz., to give completion to the inward thoughts. This human need of completing in some external sign the act begun in thought is so great, that, after the divine prohibition to take God's name in vain, even very good men, feeling unable altogether to resist the impulse, have, as if to deceive themselves, fallen on the expedient of substituting for that name some other, wholly different in meaning, but somewhat akin to it in sound. At Florence, for instance, instead of saying: "Poffare Iddio" (*Good God*), they say: "Poffare il Zio" (*Good Uncle*); while the Italian Capuchins, going much further, have invented the word "Poiane" as an innocent interjection of wonder.

1577. The instinct impelling man to complete his acts —which begin in the thought, extend to the affection, sometimes move the will to make decrees, and have their consummation in the external action, whereby they are rendered more vivid to their author—is a most powerful instinct: and if it is opposed, and man finds himself prevented from giving full completion to the said acts, he feels greatly annoyed. Hence this instinct affords a good explanation of many other facts relating to human action.

Why is it, for example, that persons suddenly overtaken by some very great misfortune break out into cries and lamentations, disfigure and injure themselves, rend their garments, beat their brows and tear their hair, lie down and roll on the ground, bite and lacerate, and even kill themselves? Undoubtedly because of the law we have just set forth. As an evident proof that the instinct here spoken of is one of the causes of suicide, we may quote the

Indian *Suttees*, whose wonderful act of self-immolation cannot be supposed as being always a merely conventional affair.* Do men, perhaps, seek a relief and diminution of their sufferings by voluntarily adding new ones? No, this is not the cause of their cruelty toward themselves. The cause is that the internal act of most vehement pain cannot be repressed and stopped at its first stage, but must run its course, displaying itself to the full of its natural bent, expanding, completing and marking itself and leaving as it were an outward monument of itself in the ill-used exterior. This proves that the mischief which people do to themselves on such occasions is much easier to bear than it would be to repress in the middle the act of their grief begun in the thought and terminating in the body through the unity of the intellective-animal subject, namely, through that dynamic *nexus* which binds together the various powers and makes the motion of one pass on to, and continue itself in, another. For a similar reason, when an exuberance of internal joy causes a man to exult and triumph in his external gestures, to trim and adorn himself, to crown himself with roses, to feast and get inebriated, and to speak magniloquently and volubly, it must not be supposed that he does all these things merely to find greater delight. His actions are in great part due to the instinct which makes the act of his inward joy pass and revolve, so to speak, through its entire orbit, and thus vent the whole of its activity.

1578. It is true, as Seneca says, that *Parvæ et lenes curae*

* It is well known how difficult it was for the English to abolish this custom in India, and how, in defiance of the most rigorous prohibitions, the practice is, from time to time, renewed even to this day. In the same manner the ancient legislators had to forbid by most stringent laws certain cruel acts, whereby people were wont to rend themselves when visited by grievous misfortunes. The Twelve Tables forbade women to tear their faces: "*Mulieres genas ne radunto*," which Festus explains, "Radere *in hoc loco significat* unguibus cruentare." Plutarch, in the life of Solon, relates that Epimenides was obliged to put a check upon the excessive cruelties which the Athenians practised on themselves at the obsequies of the dead. The Jews were forbidden to wound their limbs or tear their flesh with the nails (*Leviticus* xix, 28), and even to shave off their beards (*Ibid.* 27), which was a mark of grief among the Egyptians; and yet we see from the books of the prophets that they could not entirely abstain from such practices (*Jerem.* xli, 5).

loquuntur, ingentes stupent; but this stupor finds its explanation in the same law. To see how this is, we must consider that when stupor takes place, the cause of it is, partly, that the vehemence of the animal passion injuriously affects the organs so that they lose all power to continue the motion of the spirit (*animo*), and partly that the intensity of the internal act makes up for its want of extension. In other words, the instinct feeds, as it were, and satisfies itself in the desire and the effort to perfect the inward act of pain by increasing its degree, without at the same time being able fully to succeed therein. As a result, the sufferer, not finding in himself force enough to display that act and communicate it to the external powers, remains, so to speak, petrified within.*

1579. The same law explains why solitude is so much loved and sought by men in deep affliction; why they cannot withdraw their thoughts from the cause of their sorrow or speak of anything but their woe; why they never cease anatomising and considering it in all its most minute circumstances, and feel intensely annoyed with any one who should be so ill-advised as to even hint at the possibility of its being less than it seems to them. It is always the same instinct which tends to make the act of grief once begun, complete and perfect itself with the greatest activity it has, so that it may not remain folded up in germ, but may unfold into an outward form and grow to the largest dimension it can ever attain.

By this law we also understand how it is that tears relieve a person in affliction, to whom perhaps nothing is so grateful. They are the last exhibition of the act, which

* The story of Niobe, who, as Ovid says, *diriguit malis*, and who, it is said, still stands a *stone* among the Phrygian hills (λίθος φρυμῶν ἐν ὄχθαις), will occur to every one as a remarkable instance of profound psychological observation on the part of the early poets. No less remarkable is that evinced by Tennyson in his wonderful little lyric ballad, "Home they brought her warrior dead," in which the mother who "must weep or she will die," and who "neither swoons or utters cry," is saved by being moved to tears through a *diminution* of her grief after all attempts to move her by an aggravation of it have failed. It was fine observation that made Homer send Achilles, on the death of Patroclus, to the shore of the sounding sea to find there a great term for his grief in the infinite moving expanse and the eternal "Break, break, break." *Transl.*

without it would remain incomplete, though full of force and of eagerness to germinate.

1580. Lastly, it is in the same law that we must seek the origin of sacrifices to the Deity, and especially of human sacrifices (which were afterwards replaced by the immolation of the things most dear to man). The feeling of deepest humiliation before the Supreme Lord of all things, and especially the conviction of sin before the face of that most powerful and infinite Sovereign, calls for more than a cold and sterile act of thought; it seeks to display itself in a most real act, which, taking possession of the whole man, may penetrate and thoroughly master him. This act, which is of an infinite nature, because corresponding to the concept of an infinite being, man finds no means of accomplishing but by the destruction of himself, or, more imperfectly, by the destruction of what belongs to him. The reason is, that the essence of sacrifice, be it a holocaust or a sin-offering, properly requires that man himself should be the victim; all other offerings are merely imperfect substitutes for this perfect one. Indeed, in the holocaust the act of feeling starts from this thought: "In comparison with the Creator, the creature is nothing; the Creator alone is being." The feeling of nothingness cannot be expressed sensibly or, so to speak, monumentally, except by destruction. In the sin-offering, the act of feeling sets out from this other thought: "The creature that has offended the Creator ought not to exist." The thought of undue existence receives its final actuation only in the realisation of non-existence, and therefore, as in the other case, only by destruction. Finally, sacrifice is also an expression of supreme love; because, seeing that there is no act in which love is more intense and operative than that of suffering for the beloved object, a great lover seeks this act as the extreme effort of love possible for him. He is especially impelled to it when despairing grief for the loss of the loved one has already determined and moved him to cruel acts. Hence, at the death of Patroclus, the soldiers of Achilles cut off their hair and covered his dead

body with it, and hence the cruelties practised by all the peoples of antiquity at funerals and festivals in honour of the dead.*

ARTICLE III.

On the Proper Action of Beings.—Third Law.

1581. The third law of harmony, or of the proper action of beings, may be formulated thus: "An act, whether single or manifold, continued through the *nexus* of several powers communicating it to each other, does not, when completed, cease at once; but, relaxing according to a certain law, passes through a successive series of different and properly graduated states until it comes to final extinction. This gradual transition being natural to the subject of the act, gives it pleasure, and, therefore, if its progress be impeded, the subject feels pain."

1582. To prove this law, we cited, in the *Anthropology*,† the cases of imaginary colours and sounds. Let us here say something further with regard to it.

What Fresnel and Arago have said of the system of undulations, with the view of explaining the phenomena of light, has been considered very probable. But they confined their studies to the laws according to which the

* When the Egyptians celebrated the mourning feast of Adonis, they shaved their hair and cut their bodies, as they also did on other mournful occasions (*Herodot.* ii, 85). We are told of similar usages among the Moabites (Isaiah xv; Jerem. xlviii), the Babylonians and the Assyrians (Isaiah xii, xiii; Strabo, xvi), the Persians (*Herodot.* ix, 24), the Scythians (*Id.* iv, 71). On the death of Hephæstion, Alexander caused the hair of all the horses and mules to be cut off. On the death of Dido, her sister Anna tears herself, "*Unguibus ora soror fœdans et pectora pugnis* (Virg. *Æn.* iv, 673). And we find similar customs among all barbarous nations, in which the natural instinct is strong and predominating. Now it is exactly because such acts are the natural and instinctive effects of grieving love that they were supposed to please and appease the dead. In Homer (*Odyss.* iv), Pisistratus, the son of Nestor, tells Menelaus, that in honour of the dead he cannot do otherwise than shave his hair and weep. Plutarch (*De Consol. ad Apoll.*) relates that certain barbarous nations thought it gave great pleasure to the dead when the living cut off their ears or noses, or otherwise mutilated themselves. Servius (*In Æneid.* iv,) writes: "*Varro dicit in exequiis et luctu ideo solitos ora lacerare, ut sanguine ostenso, inferis satisfacerent.*" In this last concept, however, there is included some other recondite secret of human nature. Why suppose that the dead require to be appeased, and are desirous of blood?

† *Anthropology*, nos. 442, 453.

luminous waves of the fluid which they suppose to be diffused throughout nature propagate themselves; and this does not suffice to explain vision, because vision has its origin in the sense of sight, and not in the ether, which can only play the part of excitant. The Psychologist, therefore, must try by every means to find out or conjecture in what manner this sense acts when luminous sensations arise in the soul. I think this difficult question would be considerably advanced if we should transport into the sense itself what those two acute physical philosophers conjectured to happen outside of it in said fluid.

1583. According to this concept, the optic nerve would be a bundle of nervous filaments filled with an extremely elastic (and perhaps fluid) substance, the molecules of which would receive the impression of the waves of ether, and vibrate longitudinally much in same way as do the strings of a violin. The size of these waves, their rapidity, their number and their different encounters would account for the phenomena of vision.

In the first place, the different colours would result from the different number of vibrations made by the molecules in the nervous filament, which vibrations would correspond to the number of the vibrations of the ether. It may be held as demonstrated that the number of the latter vibrations varies according to the different colours; for example, the vibrations resulting in the yellow colour are more numerous than those resulting in the red.

1584. The greater the number of waves, the greater will be their velocity and the smaller their size. Corresponding vibrations, differing similarly in velocity, size and number, must arise in the molecules of the nervous substance, and thus produce different excitations and, therefore, different colours. This explains how every nervous filament may be capable of giving the sensation of all the colours, according to the different excitations it receives from the different luminous rays.

1585. Moreover, the vibrations propagated along the nervous filament ought, when they reach its extremity, to

be reflected and turn back according to a certain law; and this return of the vibrations would explain the imaginary and complementary colours of which we have the images after the external sensations have ceased.* In fact, when a vibration, before being completed, breaks upon an obstacle, it produces a reflected one, whose velocity must differ from the original one according to a complementary law.

1586. This would also enable us to understand how it is that the complementary accidental colours are opposed to and annul each other, that is, produce black instead of white. If a reflected complementary vibration returns along the optic nerve, and at the same time the eye is impressed with the same colour, a vibration must be produced in an opposite sense, bringing the pupil to rest. We will mention an experiment well known to Physicists:

Let there be placed upon a dark background two small squares, one violet and the other orange, with a black spot in the centre of each. If for a while we keep looking at the black spots alternately, each for a second at a time, and then close our eyes, it will seem to us that we see three squares, one yellow, which is complementary to violet, another blue, which is complementary to orange, and the third green, which results from the composition of yellow and blue. On the contrary, if the two squares are themselves of colours complementary to one another, for example, violet and yellow or orange and blue, the middle square is no longer seen, that is, it becomes black.

The explanation of these phenomena seems to be as follows.

Our optic axes have not the same direction when we look at the two coloured squares successively, and so these squares strike different parts of the retina, and give each of the eyes the impression of two squares, in all four squares. But two of these impressions strike the same part in the two retinas, the one being an impression of one

* See our theory with respect to the *Imagination* in the *Anthropology*, Bk. II, nos. 350-366.

square, the other of the other, because the axis of one eye points to one colour in the same direction as the axis of the other eye points to the other colour, and hence the impressions of the two colours strike the same part in the retina of both eyes. At the same time, the two eyes that look at the squares see only two, whether it be because the impressions have not time to combine, or because the spontaneity of the soul does not then concur in producing fantastic images, or because the attention, being directed only to the two squares, does not notice anything else. But it is not so with the imaginary colours that come afterwards. Three spaces in the two retinas having been impressed, these must give three series of longitudinal vibrations in the nervous filaments. The two spaces impressed with a single colour must each produce, as the imaginary or reflected colour, the complementary one, because the reflected vibration must always be complementary to that which impinges. The middle space, impressed by the two colours at once, must give two complementary reflected vibrations of the single colours, and these vibrations, being different in size and velocity, return without being confounded: and since a nervous filament can give but one sensation at a time, and that proportioned to the number of the vibrations of its molecules, the result must be a colour composed of the two complementaries. But, if the two colours of the squares are themselves complementary, then, while the vibration excited by one of them is on its way inwards, it must plainly be met by the perfectly similar reflected vibration of the other colour, moving in the contrary direction, and so the two series of vibrations cancel each other, and those that go the one way alternately destroy those that go the other.

1587. By the same hypothesis we may also explain why a colour, before vanishing, leaves behind it in the eye other colours successively, for example, white turns first into yellow, then into red, then into indigo, then into blue, and finally into green, with which it vanishes. When we consider that the molecular vibration that returns from the

internal extremity of the nervous filaments is complementary to the colour that was impressed upon the retina, we may conceive how again that vibration may impinge when it comes to the external extremity of the filament and be forced to turn back inwards with a difference of velocity. And this going and coming of waves always different must produce different imaginary colours until the excitation ceases altogether, and the vibration becomes so slight as not to be able to produce a distinct colour.*

1588. A similar reasoning might be used to explain the laws of the mechanism whereby the acoustic nerve transmits the excitation that causes sound. And I think it very probable that the sensations of all the other organs arise through similar vibrations and obey similar laws.

1589. Now, if every subject finds its own act pleasurable (Law I.), and consequently feels pain if any obstacle is placed in the way of this act, or any disturbance occurs within it compelling it to break off one act in the middle in order to perform another, it will follow that those vibrations of sensor molecules will be most grateful to it which produce the greatest amount of feeling, and therefore those which proceed in such harmony as not to impede or disturb each other, or become confounded together, but rather to combine in producing the greatest possible excitation. Now this explains why some colours and sounds, when seen or heard together, are harmonious and pleasant, and

* It may perhaps be objected that the nervous filaments must vary in length according to the different statures of individuals, and therefore the phenomena in question cannot be the same in all men. I reply, in the first place, that as the Wisdom of the Creator has known how to fit the same number of vertebræ, teeth, and generally of bones, muscles, &c., for all human bodies alike, so we may suppose the same Wisdom to have arranged that the number of elastic molecules in each filament of the optic nerve, and consequently the number of vibrations, should be exactly the same in every man. Of course, the molecules might vary as to size, &c., but this would not substantially militate against the point on which I insist; for we cannot say that the optic sensations are absolutely the same in all men, but only that they are analogous. In fact, in order to know whether the sensations experienced by different persons are entirely and in every single accident the same, it would be necessary to compare them; and this is impossible, for the simple reason that each individual is, and can be, conscious of no other sensations than his own. Nay, it really seems that there must be a certain diversity; for experience shows that the same colours do not excite the same feelings in every one, at least, so far as regards the intensity of the feelings.

others more or less disagreeable. As we have said in the *Anthropology*, it must be held that agreeable tones and colours—including the complementary and imaginary—are those whose vibrations are natural and spontaneous, I mean those to which the mechanism of the nervous system is already spontaneously determined of itself, so that the external impression simply associates itself with the sensitive spontaneity, aiding it, seconding it, and thus easing the exertion required of the activity of the sentient principle. Contrariwise, when the excitations received by the sentient principle are of an opposite character, or else are such as to disturb or impede each other, so that the principle is not allowed to continue and finish the sensitive acts it has begun, being compelled by new excitations to leave off these and perform different ones, then there is discord, disharmony, and consequently discomfort, pain.

1590. Let us apply this theory to the consonances and accords of sound.

First of all, given several sounds starting from the same point and at the same time, they will produce but a single sensation corresponding to the vibrations of that nervous filament which they excite. This may be proved by Savart's experiment, in which a toothed wheel is made to revolve so that its teeth successively strike a fixed card. If the wheel revolves slowly, we distinguish the strokes of the teeth upon the card, because these strokes are given with an observable interval of time between them. But if the motion of the wheel is very much accelerated, then we hear only one continuous sound, whose pitch rises in proportion to the velocity of the rotation and the consequent more frequent vibrations of the card. The reason of this is that the strokes succeed each other at intervals too short to allow of separate sensations being formed. In order, then, that there may be several acoustic sensations and, hence, accord, the aerial vibrations must not all reach the ear at the same time, or else they must proceed from different points, in which latter case they do not strike the same nervous filament.

1591. There may be accord between successive sounds, provided they are separate from each other by a very slight interval, as well as between sounds coming at the same time from different points, for example, from the different instruments of an orchestra.

As the accord of successive sounds, like those coming from a single singer or a single instrument, must excite sensation in the same nervous filaments, so it could not give us pleasure unless the soul which collects these sounds rendered them simultaneous through its nature, which is free from time. It is therefore the soul that experiences a single feeling resulting from several successive sounds, and this feeling is that of melody. Hence in the existence of melody we have a fresh proof of the simplicity of the sensitive principle, as well as of its identity in different times. In fact, the act of the fundamental feeling has a permanent duration, and the successive sounds are modifications of this identical feeling. In it, therefore, they find their comparison and leave the agreeable harmony called melody. Here we see again that the unity of harmony is altogether psychological in its origin.

1592. But, according to the law which we have laid down, this pleasure springs up in the sensitive soul because the two or more successive sounds are natural and spontaneous to it, that is, are such that it easily displays in them its activity, and performs sensitive acts without being checked, impeded, or forced to change them before they are perfected. The truth is, 1.° That there is a pleasure accruing to the soul from each of its acts, inasmuch as feeling is always pleasurable to it. This, however, is not harmony but simple pleasure, which is marred when these single acts are checked in the middle; 2.° That there is a pleasure accruing to the soul from a plurality of acts, when these, instead of disturbing, help each other; and this is the pleasure of accord or harmony.

1593. In fact, the soul feels pleasure when it performs its act with the greatest ease and the least exertion possible; and it does so when it is not constrained to

change that act. For this reason, the *regularity* of its acts is pleasing to it, inasmuch as regularity, by preserving a uniform mode of operation, saves it from the trouble which the necessity of changing that mode for a new one would entail on it.

1594. Accordingly we find, that the harmonic or accordant sounds are those resulting from vibrations whose numbers stand to each other in the same relation as the natural integers 1, 2, 3, &c., without fractions; whence it comes to pass that a similar relation obtains between the sizes of the vibrations, so that two or three or four, &c., vibrations of one sound are exactly equal to one vibration of another, or, which is the same thing, the velocity of the vibrations of one sound is twice, thrice, four times, &c., that of another. Through being distributed in this way, the vibrations, 1.° neither become confounded, nor impede each other; 2.° have relations that are, on the one hand, readily perceptible, and, on the other, remain always the same, so that the excitation has a constant standard of measurement. Thus the soul, having to concur with its activity in the production of such sensations, very soon discovers according to what law they are produced, in other words, its action becomes regular, and this regularity is what produces *habit*, which renders action spontaneous and most easy.

In order, therefore, to know what sounds best agree together, it will be sufficient to observe what sounds are produced by ethereal vibrations related to each other as the natural numbers. Following this rule, we find the accord of the octave, whose vibrations are as 1 to 2; that of the fifth, whose vibrations are as 2 to 3; that of the fourth, whose vibrations are as 3 to 4;* that of the third, whose vibrations are as 4 to 5; and the so-called perfect accords *fa, la, do; do, mi, sol; sol, si, re*, the numbers of whose vibrations are always as 4, 5, 6.

* Prof. Toscani assures me that he has observed that the first sounds uttered by children are monotonous, and that the first inflection observable in their voices represents a leap of a fourth.

1595. Now the Divine Wisdom has so ordered external corporeal things that they might by their own proper laws aid the soul to its acts. Hence, as is well known, a vibrating chord, besides vibrating with its whole length, vibrates with half its length, a fourth of its length, &c., so that along with the sound of the entire chord other sounds are produced, and just those that make harmony.*

1596. As to the accords due to simultaneous sounds coming from different directions, the reason of them is the same; for although we suppose that discordant sensations are received by different nervous filaments, and so cannot be confounded one with the other; yet the spontaneity of the soul helps to produce them. Hence, if the numbers of the vibrations have no exact and clearly defined ratio between them, the soul is obliged to operate irregularly, and to vary the measure of its action. Now this confirms and corroborates what we have said as to the unity of harmony being psychological in its origin. This is true, notwithstanding that the spontaneity of the soul is excited, either with or without regularity, by external stimuli which cause changes in its term.

1597. Finally, the reason why the regular beating of time gives pleasure is to be found in the same law which governs the action of the soul.

ARTICLE IV.

Conclusion on the Cosmological Law of Harmony.

1598. From all that has just been said we may conclude:

1.° That the corporeal world received from creative wisdom an admirable order, so that it might furnish order and harmony to the animal feeling as well as to the rational principle;

2.° That this order lies not only in things external to man, but also in his organisation (to which we shall

* On the correspondence between the external world and the soul, see our *Anthropology*, Bk. II, no. 434.

return further on), and in the exquisite structure of his sensorial organs, which are designed and arranged with such art and mastery of proportions as to correspond and agree in a marvellous way with the proportions of the external and material world ;

3.° That the sensitive principle is what gathers the wonderful order of the external world as well as of its own term (the sensories), and by its activity puts form into it. The external world taken by itself alone would not possess the nature of order, of proportion, of harmony, but only of separate and disjoined entities and actions. It receives order, proportion, harmony through the unity which the sentient principle itself creates in that multiplicity, fitted for the purpose. Now this formal part of harmony, although not of *rational* origin, is nevertheless of *psychological* origin, because it comes from the soul as sensitive.

CHAPTER XXX.

ON THE PSYCHOLOGICAL LAWS OF THE RATIONAL PRINCIPLE, CORRESPONDING TO THE GENERAL COSMOLOGICAL LAWS.

1599. Since the action of the rational principle results from its activity combined, on the one hand, with the lucidity of the object, and on the other, with the stimulating action of the world, it is obvious that it contains three elements, one of ontological origin, one of cosmological origin, and one of psychological origin. To separate the part that is of psychological origin from the rest is difficult for the very reason that there is no rational action which has not in it something of both the terms—the object and the extra-subjective world—which are its cause. Hence we have not been able to speak of the ontological and cosmological laws which the soul follows in its action without turning aside to look at the psychological laws mixed up with them. Therefore, now that we are going to explain the psychological laws referring to the cosmic term, we shall, in order to avoid useless repetition, either altogether omit, or, when necessary for keeping up the thread of our argument, only lightly touch upon what has already been said.

Of the psychological laws corresponding to the cosmological ones, some direct the speculative reason, others the practical reason. Let us begin with the former.

CHAPTER XXXI.

PSYCHOLOGICAL LAWS OF THE SPECULATIVE REASON, CORRESPONDING TO THE COSMOLOGICAL LAWS.—LAW OF SUBJECTIVE ANALYSIS.

1600. The speculative reason, when determined to action by its terms and needs, sometimes, through a concentration of its attention, breaks up into parts those objects or terms of cognition which in themselves are not divided. But if after this it wishes to gain a full knowledge of things, it must proceed to reconstruct what it has destroyed, by reuniting the divided parts. Finally, if the real object upon which it meditates is not offered to it by perception, it argues from analogy. Hence three subjective laws: 1.° that of *analysis*, 2.° that of *synthesis*, 3.° that of *analogy*.

1601. The different sensories receive different impressions or excitations from the self-same bodies. These excitations, or rather the sensations arising from them, cause the acting body to be perceived. They are so many *representations* of it, or, to say this in other words, they are, with respect to the soul, so many *vicarious signs of the real being* that has produced or occasioned them.* And since these sensations are only modifications of the fundamental feeling, we may say that there is, innate in man, a *representative* of the whole external, material world. It is the internal world representing the external: it is the *subject*

* In this sense we may truly say that *Similitudo rei intellectæ est forma intellectus* (St. Thomas, *Sum. Theol.*, Pt. I, q. lxxxv, art. ii, *ad* 1m). Such sensible similitudes of bodies require themselves to be conceived by the mind through the idea; the idea, on the contrary, is the direct intuition of the essence of the thing, and this ideal essence is not the similitude of the thing, but its essence. See *New Essay, &c., Passim.*

representing to itself all that there is of *extra-subjective* in real connection with it.

1602. Now since every corporeal being is represented by several sensations, it comes to pass that the rational principle is, in a manner, invited by this sense-prism, as we may call it, to divide bodies into several aspects or natures; and this is the first thing that gives occasion to *subjective analysis*.

1603. The rational principle not only uses those *natural signs* in order to direct its attention to extra-subjective entities and their activities; but it also soon invents, as we have seen, *analogous* and *artificial signs*, that is, languages, which have a marvellous analytical power; and it does so according to its needs.

It must be observed, that man's *needs*, which are *groups of passive and active feelings*, do not always refer to beings in their totality, or yet to their substance, or even to those perceptions which divide up beings according to their effects upon the different sensories; but very often they are satisfied by certain determinate accidental actions and aptitudes of beings, to which alone he attends, because then they alone interest him. In this way he finds new occasions for dividing up the known objects still further, viewing them under certain particular relations which they have to him, and not in themselves or in the oneness of their being.

1604. Now, by virtue of the ontological law of cognition, man transforms even these accidents and these manifold relations into so many beings; which is a kind of subjective synthesis. This he does by reducing such appurtenances of beings to abstractions, contemplating them as so many essences standing by themselves, and giving them names, which, properly speaking, could only be called *signs of signs*, because they mark sensible accidents, which are themselves signs of beings.*

* We have already observed that *names* may perform three functions. 1.° They may excite the mind to think a real being without stopping at its abstract nature: this is done by proper names applied to several individuals, and these may be said to signify *nominal abstracts*, because they do not

1605. The speculative reason, therefore, by concentrating its attention, breaks up beings by a spontaneous operation,

1.° According to their special *actions* and *passions* ;

2.° According to their *relations*.

The diverse *actions* and *passions* which man experiences or observes in beings have their foundation in the intrinsic multiplicity of the beings acting and acted upon, and in the intrinsic multiplicity of the human subject who receives in him the action of those beings and, by acting in them, produces their passions.

1606. As to the *relations*, some of them are essential to and constitutive of beings, as, for example, the continuous with regard to bodies ; others are *accidental*, for example, a given colour, which is a relation between a body and the sense of sight ; others, again, are not even accidents of beings, but simply relations which the mind produces by comparing what is one with what is manifold ; and hence they receive the name of *dialectical relations*. They are extrinsic to the beings themselves ; they do not posit in them anything either essential or accidental, but stand between one being and another in the mind which unites and compares the two. Such is the distance between one body and another, such is similarity, &c.

1607. This is the origin of *mental beings*, which must be carefully distinguished from *ideal beings*. *Ideal beings* are the objects of the intuition of the mind, the essences of beings. But *mental beings* are *partial glances of the mind*, which in them does not embrace the whole of a being, *i.e.*, its essence, but limits itself to some element or relation of it, and posits to itself this element or relation as if it were a being, and reasons about it as such. It is led to this by the principle of cognition and by what we have called the faculty of *fiction* or of *intellectual creation*.

represent to the mind any *ideal essence*, but serve to guide it from one individual to another through the relation arising between them from the fact of their having the same name ; 2.° they may excite the mind to think a specific or generic essence, as is done by abstract names, *e.g.*, whiteness, &c. ; 3.° they may excite the mind to think either a *real being*, or an *ideal essence*, and through the latter to think the former. This is done by all common names.

In this way the mind changes into a positive being even a mere negation, as in the case of *limitation* and *naught*, which as we have said are only *glances of the mind*. In fact, what is the limitation of a being? Merely the denial by the mind itself that the essence of that being contains a certain entity, which it does not contain. Now the *act of denial* belongs to what we have denominated the *faculty* of *judgment* and of *affirmation;* consequently the cognition resulting from it is not objective, but subjective. Again, what is *naught?* It is merely the negation of being, being *plus* the act of the mind which removes it—a cognition given to the mind by its own act respecting the object (being).

1608. If the ancients had known the distinction between objective cognition, which is given to man by the object, and subjective cognition, which is given to him by his own act, they would not have disputed so much about whether non-being is thinkable by the human spirit.* Parmenides, who took the negative side,† spoke of non-being in an objective sense, and certainly non-being, taken absolutely and simply, is not an object of thought. Plato and Aristotle, who proved that non-being is, in a certain way, thinkable, spoke like cultivators of dialectics, as they were, and therefore in a subjective sense; the truth of the matter being, that nothingness is thought by us, not because it is really an object, but because we, by means of an interior glance of our own, fictitiously constitute into an object what is simply a negative relation which our mind finds between beings, a being which the mind denies to be a being.

1609. Hence the question agitated by the ancients, as to whether generable things (so they called things and forms that begin to be, we should say *transient acts*) sprang from *being*, or from *non*-being. Their opinions regarding the way of solving this question were chiefly four.

Some, unable to conceive, on the one hand, how anything could come from nothing, and, on the other, how

* Plato, *Sophist.*

† Οὔτε γὰρ ἂν γνοίης τό γε μὴ ἐόνοὐ γὰρ ἀνυστόνοῦτε φράσαις. Mullach, *Frag. Phil. Græc., Parmen. Frag.*

being could produce outside itself anything that was not already, denied all beginning of things: in other words, they admitted only being, and this eternal and immutable.*

Others, unable to deny that some things begin, and also unable to conceive how being, if it already was, could generate, that is, produce what was not, said that everything came from non-being, and that, therefore, everything was transient and unstable.†

Others maintained that, between being taken simply and non-being, naught, there was a middle entity, in which must be sought the principle of things. This was the system of Aristotle, who distinguished being into *being simply so called* (τὸ ἁπλῶς ὄν), and *being according to virtue* (τὸ κατα δυναμιν ὄν), or also into *being in act* (τὸ ἐνεργειᾳ ὄν), and *being in potentia* (τὸ δυνάμει ὄν),‡ and flattered himself that he could thereby successfully combat the Eleatics and solve the arduous problem proposed by them.

Finally, the Platonists, instead of having recourse, for the explanation of the beginning of beings, to something intermediate between being and non-being, as Aristotle did, undertook to show that the beginning even of all contingent things might be in *being*, distinguishing between *being simply so called* (τὸ ἁπλῶς ὄν) and *perfect being* (τὸ παντελῶς ὄν), in which lay the complex of all beings. And that Plato himself inclined to this opinion I am led to believe by the fact that he censured Parmenides for having divided the all from the all (τό γε πᾶν ἀπὸ παντός).‖

1610. This diversity of opinions arose in part from those philosophers confounding *object being* with *abstract being*, *mental being* and *absolute being*, in other words, from a want of accurate distinction between the different species of human cognitions.

* This is the famous argument of Xenophanes. See Aristotle *De Xenoph. Zen. et Gorgias*, *Physics*, i, 8; *De Cœlo*, iii, 1. Chalcideus, *In Timæum*, p. 283, mentions this argument: "*Si quid fit, id necesse est vel ex eo fieri quod jam erat vel ex eo quod non est; utrumque autem impossibile.*"

† Sext. Empir. (*Adv. Logic*, vii, 53, 388, 389; *Pyrrhon. Hypot.*, ii, 18), says that Xeniades of Corinth held all things to be transient and generated from non-being: Εκ τοῦ μὴ ὄντος πᾶν τὸ γιγνόμενον γίνεσθαι καὶ εἰς τὸ μὴ ὂν πᾶν τὸ φθειρομενον φθείρεσθαι. See Aristot., *Phys.* i, 9.

‡ *Phys.*, i, 8. *De Cœlo*, iii, 1.

‖ *Sophist*, p. 259.

1611. The first of these philosophers fixed their minds upon *abstract being*, which is not entirely *object being*, because object being is *ideal being*, to which every real being and, therefore, every entity is equated; whereas *abstract being* is that concept of being which positively excludes every determination and limitation that may occur in being itself. Hence the formation of *abstract being* is a subjective work of the mind, while ideal being is given by man's natural intuition, although reflection can afterwards find it also by a process of abstraction, that is, by removing the special modes and determinations by which being happens to be limited.

1612. The second set out from a *mental being*, as non-being is, since the negation of being is merely a subjective work of the mind, not erroneous in itself, but causing error when non-being is converted into a true being which may be a principle or efficient cause of things, as was done by these philosophers.

1613. The third, that is, Aristotle and his followers, by setting out from potential being as something that served as matter for being in act, started likewise from a mental being. This concept was suggested to Aristotle by experience, which shows that certain things develope as from a seed, and acquire a more explicit existence, and, in general, by seeing that the things which fall under our perception are *limited*. The concept of limited beings is composed of an objective and a subjective element, because in so far as things are beings (knowledge of intuition), so far they are objects; but in so far as they are limited, they are known as such by an act or glance of the mind itself, which, as we have said, denies certain entities of them (knowledge by affirmation). Aristotle took this concept made up of being and of limitation, and at the same time increased the limitation beyond all measure, not observing that with such increase the being must necessarily vanish. He therefore retained being, uniting it with an infinite limitation, and thus converted it into his potential being, or first matter. In truth this was merely

the non-being of Xeniades; but Aristotle, always ambitious of originality, denied that it was, and called it *potential being.*

1614. If he had not left this pure potentiality standing by itself, but had affirmed it to be seen in God, he would have fallen into the fourth opinion, that of the Platonists, who erred only in the accessories and in the development of their system.

1615. It is, therefore, the duty of philosophy, and properly of dialectics, to distinguish between *mental being*, which is a product of the mind, and true objective or objectifiable being, and not to speak of the former as if it were the latter; in doing which alone error consists.

Into this error it is very easy to fall; because the mind not only changes its negations into positive beings, on account of the words or signs to which it attaches its concepts, and which are positive acts; but sometimes it does also the contrary by clothing the positive in a negative form. Moreover, it interchanges the positive and negative at pleasure through the form in which it clothes them; and the negative which it has thus rendered positive it again clothes in a negative form, and then again in another positive form, and so makes a compound of mental concepts wrapt up one within the other by means of as many forms as it chooses to put on them. A very clear example of this may be seen in algebra, in which any sign, positive or negative, may be placed before any quantity either positive or negative, by which means a negation is denied, and that denial again denied, and so on. I may write a positive quantity with two negative signs, — (— a), and a negative quantity with a positive sign, + (— a), and I may give to any quantity all the signs I please, without its ceasing to be positive or negative as it was at first. The same thing happens with language. If I say: "God does not lack anything," I give the form of a double negation to the greatest of affirmations, because this proposition is equivalent to the positive one, "God has everything."

1616. Now the first thing which a dialectician must do,

if he means to have a controverted point finally settled, is this: To take the proposition in question and go on gradually stripping it of all the various forms in which the mind has clothed it, chiefly with the aid of language, until he has reduced it to its genuine primitive sense, and then observe whether in this state it is a negation or an affirmation. By this means his reasoning will be simplified and will easily dispel those sophisms to which the artificial wrappages produced by the subjective operation of the human understanding are apt to give rise.

1617. This process leads to another important result, that is, it brings out very clearly whether what is predicated of a thing is an accident of the thing itself, or a mere relation with the mind. When, for example, Plato and Aristotle charged Parmenides with self-contradiction for having said that being was *one* and nevertheless *eternal*, and thus placed in being the plurality of substance and accident (οὐσία, τὸ κατὰ συμβεβηκός),* the Italian philosopher might have replied: "It is true that when I predicate eternity of my *being*, the *form* of the proposition divides it into two—being and eternal; but this division lies only in the subjective conception and the expression of it, because eternity is only an external relation conceived by the mind, a negation of time or of cessation; hence it places in the object nothing beyond being itself: nay, the true value of the predicate with which you find fault is, that it prevents us from finding multiplicity in being, that it is the very negation of multiplicity and accident."

1618. Such, then, is the task to which the dialectician must apply himself, namely, to distinguish the different *forms* in which the mind clothes a concept or a sentence and re-clothes it again and again, and to restore it to its primitive, simple state.

* Plato, *Sophist*. Aristotle, *Physics*, i.

CHAPTER XXXII.

CONTINUATION.—LAW OF SUBJECTIVE SYNTHESIS.

1619. Man's different sensories divide up being. This is, properly speaking, *cosmological analysis*, that is, analysis furnished to the rational principle by its term (the world). Analysis begins to be *psychological* when the rational principle divides what is not divided in the sense, and by man's passive and active feelings (sensible needs).

1620. To cosmological analysis there corresponds a synthesis likewise cosmological, in which the rational principle unites the different sensible representations, which the different sensories furnish to it, of the same being, and observes that they all belong to a single being variously represented in the various effects produced by its action on those sensories. This synthesis also we have called *cosmological*, because it is the world, the term of our feeling, that furnishes the bond to all the various sensations and perceptions of a body; and this bond is the identity of the space occupied by the body that acts in these several ways.* In fact, the various sensations differ in their *feel*, but not in the space their terms occupy. The various parts of space, taken separately, are not discernible by man, because one part of space is exactly like another, so long as their confines and location cannot be distinguished in the total space. Now no sensory distinguishes the location and confines of its own space, because, as we have elsewhere said, the confines of the space belonging to any sensory are not sensible to the sensory itself. Consequently, the rational principle does not receive from any single sensory

* See *New Essay*, vol. ii, no. 941.

the means of knowing the location or the confines of the total space thereof. Each sensory furnishes to the rational principle only the location and the *parts* relative to the whole of its own particular space, not the location and confines of this whole itself. And as the location and confines of these parts, or their proportional distributions in the various sensories, are identical, so the space itself appears identical, as we have seen in the case of the space occupied by the sensations of the touch and those of the sight—the two sensories which present the said parts of space with the most accurate precision of outline. Here, then, we see how it is that our various sensories do not cause us to multiply bodies, but only the representations of them, and that we refer all these representations to a single being, which we denominate tactile, coloured, savoury, sonorous, &c. This is, clearly, a cosmological synthesis.

1621. It was this synthesis that gave rise to the distinction between *substance* and *accidents*. The single being to which we refer all the effects received in our sensories we call *substance*, and these effects themselves we attribute to it as its accidents, because, these being representative of it to us, we do not disjoin the representation from the represented, inasmuch as it is by the former that we are enabled to know the latter, and this latter vanishes from us if we attempt to strip it entirely of the former. It is true that the effects which an external body acting on our sensories produces in them are diversified by the difference of these sensories; but the acting *body* itself has two actions only, one in our sensitive principle and the other on its term, *i.e.*, our animate body: nay, even these two actions themselves are, perhaps, differentiated solely by the difference of nature between the sensitive principle and its term on which the external body operates.

1622. This explanation of the origin of the concept of *substance* involves also the explanation of that of *species*, whether *full* or *abstract*. The full species is the concept of a being clothed with all its accidents; the abstract species is the concept of the same being stript of its accidents and

retaining only that bond, that unity, to which all the accidents representative of it were referred. We have said that the *abstract species* is that concept which enables us to know "the act whereby a being subsists;"* but we have not determined what that act is. Now we are in a position to do this.

We know beings positively by the effects which their actions produce in our sensories and, more generally, in our feeling. Now this feeling itself sometimes supplies a basis by means of which the rational principle is made aware that a certain group of effects must be attributed to one and the same being, as is the case with the concept of bodies, which is formed through our feeling furnishing to us the perception of a force which diffuses itself in a single space, although in that same space there are sensations of different characters.† Hence we conclude that it is one sole force, one sole agent, that produces these manifold effects. In this way that one force or agent becomes the *abstract species*, and the abstracting of it is a work of the rational principle, because the sensories do not give that force except as clothed, sometimes with one set of effects, sometimes with another, but in all cases clothed. If, however, we happen to experience another group of effects which have not the same bond, *i.e.*, whose unity is not given in feeling, as, for example, a group of sense-perceptions not referring to the same identical space, then we at once form, out of this second group, the concept of another being, and thus have another species. This is how the *multiplicity of being* originates for us.

1623. But these groups of sensible effects may differ only in their reality, and remain the same in the rest. In this case they will be known through the same concept or species. Hence their multiplicity will be a multiplicity of

* *New Essay*, &c., vol. ii, no. 657.

† The *identity of space* here spoken of is an identity relative to the group of the effects, and not absolute. Hence a body transported into different places is said to be identical, because in whatever place it happens to be, the group of sensible effects is always united as before. It is always referred to an identical space. The difference of the places occupied by a body does not, therefore, enter into the specific idea of that body.

individuals and not of species; neither will they constitute a diversity of species, either abstract or full. I say *full*, because even in the case of the full species there may be many individuals corresponding to it in the order of reality, and each individual may have its own substance and accidents, since the diversity of *reality* multiplies both these things.

When, therefore, we said that abstract species are divided according to their different act of being, we meant the act of ideal being, and not of real being. Indeed the diversity of the acts of real being multiplies only real individuals. To these there corresponds a single abstract species; hence in the order of ideality the act of being remains one and identical, and so there is but a single abstract species, a single ideal substance for many similar individuals.

1624. We have said that the abstract species remains the same when the different groups of sensible effects which cause us to know a being differ only by their different reality. Now this would seem to be contradicted by the fact that in the different groups of sensible effects corresponding to the same species there is a certain amount of variety, besides the different reality, and yet this does not change the abstract species. Thus, one pear may differ in size, colour, &c., from other pears, and even from itself considered at different times; and yet they are all known through the same abstract species of pear.—To this we reply that the group of sensible effects representing a single being must be taken in its totality, and hence, if the same pear presents different aspects when perceived at different times, these sensible aspects or effects, although successive, belong to the same group; and the same must be said of the varieties found in different individual pears.

1625. What, then, is the principle that multiplies individuals?—Difference of *reality*.

1626. What is the principle that multiplies beings?—As a finite being is constituted by that unity whereby its sensible effects are grouped in such a way as to show that

they all proceed from one and the same agent—a unity, which in the case of a body is found in the identity of space, and in the case of the soul in the identity of feeling, &c.; so the multiplicity of beings is given in the feeling which we have of them, when in this feeling we feel one sole principle or cause of a certain number of sensible effects, and feel that to that principle or cause there cannot in any way be attributed certain other sensible effects belonging to another sole principle or cause, also felt. To this principle or cause of a given group of effects we shall give the name of *sensible basis of the being*, and say that beings are multiplied as their sensible bases multiply.

1627. What is the principle that multiplies full species? —Species, as such, lack the reality of being, and therefore lack that multiplicity which arises from difference of reality. The different *really sensible basis* multiplies beings; but if this multiplication is by way of *reality*, in such case to many fundamental sensibles, differing only in their reality, there corresponds a single species. Now the sensible bases are given by our feeling as clothed with the groups of their effects; and to the sensible bases thus clothed the full species corresponds. It sometimes happens, however, that all the sensible effects attributed to the same being cannot be contemporaneous, inasmuch as one excludes another; for example, if a body is red, it cannot at the same time be yellow. Now the full species causes us to know the sensible basis clothed with all its sensible effects, whether contemporaneous or compossible; and this is why the full species multiply, viz., because the same sensible basis clothes itself with various sensible effects.

1628. What is the principle that multiplies abstract species?—An abstract species makes known only the sensible basis of a being. These species are, therefore, different when they cause us to know bases that are different, prescinding, of course, from their reality as well as from the consideration of any sensible accidental effects.

1629. The diversities of species, therefore, proceed from the ontological relation which being in the real mode has

to being in the ideal mode—a relation that is determined solely by the intrinsic order of being itself.

1630. We have laid down as the principle of the multiplication of beings the diversity of their really sensible bases; but the human spirit, by its faculty of fiction, supposes sometimes such bases to exist even where they do not, and thus creates *mental beings* to itself. The different kinds of these beings it is the duty of the dialectician to classify most carefully.

Sometimes the spirit creates a mental being by taking some accident, some sensible effect, and considering it as the sensible basis of a being; which is a very easy thing for it to do, especially when the sensible effects are arranged in such order that the one is a prior condition of the other. Let us suppose that it changes colour, which is a mere sensible effect, into a being. In this case, it will predicate of colour size, form, motion, &c., looking upon colour as the subject of all these accidents. In a similar way it can change every abstract into a being, and thus, in virtue of the power which it possesses of restricting its mental glance and concentrating its attention, create many species without multiplicating the being to which they severally refer.

1631. There is, however, one of these creations or fictions, which specially calls for the philosopher's attention, because it is so natural to man, so necessary and, therefore, common to the human race; I mean the concept of matter. Matter, the term of the sensitive principle, has so essential a relation to this principle, that if it be separated therefrom, it can no longer be conceived as it is. Nevertheless, thought separates it from the sensitive principle, and arbitrarily considers it as a being standing by itself. Now matter, disjoined from feeling, does no longer give the concept of a being, but only of a rudiment of being, of a being in process of becoming, without having yet reached completion. It may, therefore, be asked: Is matter conceived in this way a full species, or an abstract species, or what?

Plainly, it cannot be a full species, because here we pre-

scind from its sensible effects; neither can it be an abstract species, because this species also refers to a sensible basis. It can, therefore, only be classed among (ideal) genera, which are ideas representing, not a being, but merely something of a being. Hence the word *matter* does not signify any one species of beings, but it signifies that of which many species of beings are composed; and it has two aspects: 1.° Either the matter of which corporeal beings are composed is considered in relation to the form, and then it is something altogether passive or receptive of the form, and in virtue of the law of synthesism, is never without this; or 2.° It is considered in relation to our concept, in that act wherein this concept is formed, and then it signifies what we have designated by the appellation of *sensiferous*. And if we now wish to define the sensiferous, or matter considered from this point of view, in accordance with the above theory of the origin of the multiplicity of beings, we shall have to express ourselves thus: "To the *sensible basis* there corresponds, in the ideal order, the abstract species; and when several *abstract species* correspond to several sensible bases, then these sensible bases differ in species and not merely in individuality. Now if we take several sensible bases of different species and, prescinding from their specific differences, form them into one abstract, we have the genus of these bases, and this genus is exactly the concept of sensiferous matter." Hence we see that the concept of matter is (ideal) generic.

1632. But, inasmuch as the *sensible generic basis* from which the species determined by the group of sensible effects has, through abstraction, been taken away, is a *formless sensible basis*, it evidently follows,

1.° That the abstract species makes known the *form* of beings, this word *form* being taken in the ancient sense,* as "that which makes a being what it is;"

2.° That the concept of matter excludes that of form and, therefore, that of species.

* *Forma* (form) in Latin corresponds to the Greek εἶδος, which means exactly *species, visum.*

1633. But here arises the question whether in the species, either abstract or full, the individual is included. We have already said that the multiplicity of individuals arises from reality (1625). But it is one thing to say that the multiplicity of (real) individuals is not comprised in the species, and another to say that the (specific) individual is not comprised in it. We say, therefore, that the *multiplicity* of individuals is not included either in the full or in the abstract species, so that a person who should have only the species in his mind would never be able to know the number of real individuals of that species (at least as regards the species of contingent beings known to us); but we say at the same time that the specific individual is contained in the species, in other words, that every species makes known the individual being, whose realisation may be repeated many times without any change taking place in the species. In fact, the *form* of beings, I mean their complete form, is nothing but their individuality as known in the species; for which reason it is called *specific individuality*.

1634. Hence the distinction between the concept of *nature* and the concept of *individual*. The former has two significations, meaning, both, formless being—for example, matter—and formed being; and in this latter case it corresponds to the abstract species, expresses the individual as it is in this, and not the multiplicity of real individuals; on which account it applies to each individual, not to all. Thus we may say: "Human nature subsists in many individuals," which does not mean that it is divided into a multitude of individuals, but that the whole of human nature subsists in each individual; and he who should say that human nature is divided into many individuals would speak incorrectly.

1635. The *form* of beings, therefore, constitutes their *specific* or *ideal* individuality; and if we decompose the individual by abstraction, then we distinguish, 1.° its *nature*, and 2.° its *individuality*, taking the word *nature* to mean its *formless being*, and the word *individuality* to mean its *form*,

its completion, the last act which perfects and specialises it.*

1636. Hence those natures that have not *individuality* are formless, are not complete beings. Therefore individuality is an essential character of every being.

1637. It follows that matter is a formless being and, in this sense, a non-being. Hence if we interpret the doctrine of those ancient philosophers who said that things were produced from non-being (γίγνεσθαι ἐκ μὴ ὄντος),† as applying to material things and to material cause, it is not devoid of truth.

May then this formless being, which is not complete being, be informed and individualised? The School of Aristotle answered, Yes; and indeed the entire Aristotelian doctrine about forms is taken from the forms with which matter was supposed to be clothed. Well, let it be so. We will not oppose this doctrine; but we will explain it in a reasonable way. We will inquire how much of *subjective knowledge* there is in these forms as conceived by the human mind, in other words, how much the rational subject itself puts into them when it acquires their concepts, and how much *absolute knowledge* there is in them. Let us take up again the concept of matter as we have explained it. Matter, as such, is conceived as "the generic concept of all the various *sensible bases*." Hence matter is known only from what is given to us in the sense; for it is on this that the abstraction of the mind was performed in order to arrive at this concept. But all that the sense presents to the mind is its term, which, in the case of the animal sense (of which we are now speaking) consists in a (sensiferous) force diffused in extension. Now extension is presented by this sense in two ways, namely, as *unfigured* and as *figured*. It is unfigured in the fundamental feeling, and—when considered in its totality (1620)—in the special sensories; it is figured in those parts of extension which are presented by certain sensories, the touch, the sight, &c. No one says

* In intellective beings *individuality* acquires the name of *person*. See *Anthropology*, Bk. IV, 832-838.

† Aristotle, *Physics*, i, 9.

that the unfigured extension presented by the fundamental feeling or by the special sensories is individuated; such extension gives only the concept of the *nature* of extension, or of *indefinite space*. But as to the parts figured by the term of the sensories, they are said to be individuated, and it is to them that we owe the concept of special bodies. We have seen, in fact, that special bodies are unified through their *sensible basis*, which is a determinate part of space wherein we experience certain sensations, which, exactly by reason of the unity of that space, become to us representative of one and the same body, one and the same space.

1638. We have also said that the sensible bases clothed with their groups of sensations are manifold when the *abstract species* by which they are known is but one, in which case their multiplication takes place in the order of reality and not in that of ideality. Thus the individuals of the human species are many, and the concept-man is one. These individuals are known to be many, not through the concept-man, which is one, but through the different real sensible bases, which are many. It is, therefore, through the aid of sense (the power which communicates with real being) that their plurality is known.

As regards material beings, their subsistence or reality is material. In every *sensible basis*, therefore, we perceive a matter (force diffused in extension), and it is by the group of sensations which clothe it, that we have it determined for us, and know that it is such or such and not another. But this group of sensations may be dissolved by means of abstraction, some of them being set aside, and some retained in the mind. Now in every one of these groups of sensations there are, 1.° sensiferous force, 2.° figured extension, 3.° sensations of different feel, or of the same feel, but varying in quality. We may, by the power of abstraction, divide these three elements that go to constitute a body, in all kinds of ways, and thus form to ourselves as many ideal *generic concepts*.

1639. In fact,

1°. We may restrict our attention merely to the sensiferous force, and then we have the concept of *formless matter;*

2.° We may restrict our attention to the extension, and then we have the concept of *mathematical bodies;*

3.° We may restrict our attention to the sensations of different feel, or to a genus of them, and then we have the concept of *accident*, or of a genus of accidents;

4.° We may restrict our attention to two of those elements, *i.e.*, force and extension, and then we have the concept of *body* (in general);

5.° We may restrict our attention to figured extension and the feel of the sensation, and then we have the concept of figured accidents, *i.e.*, accidents limited by a certain extension;

6.° Finally, we may restrict our attention to the force and the sensations of different qualities referable to different sensible bases, and then we have the concepts of different kinds of matter, *e.g.*, water, air, fire, wood, &c.

1640. All these concepts are generic and not specific. For this reason they do not make known the individual, because none of them makes known the complete form. The first excludes all form, and the others posit *imperfect forms*, which are only parts of form. Hence we see that there are some genera that make us know matter, others that make us know form, without, on that account, making us know the individual.

1641. Now since, on the one hand, the concept of *matter* excludes the individual, and consequently has no limit (for it is by the form that limitable things are limited); and since, on the other, the subsistence of material things is *material;* we are able to understand how *matter* (according to the concept explained) cannot be multiplied, although it may be divided into parts. The concept of matter remains the same under all forms, because if it were multiplied, it would no longer be mere matter, since it would have limitations. Hence the multiplication of individuals comes from the *form*, in so far as this renders them subsistent—from

the *reality* of the form—and not, as the ancients thought, from matter.*

1642. What is said of purely *formless matter* must also be said of the *genera of matter*, which constitute the sixth of the concepts above enumerated. Thus, for example, water, when in drops, is not *multiplied*, since in each drop there is the whole of the substance expressed by the term *water*. What takes place in it is a division into *parts;* for that portion of water which is in one drop is not in another. Hence in matter, whether entirely formless, or having only generic form, there happens the exact contrary to what happens in the [animal] soul, which may be *multiplied* but cannot be *divided*.

The *form* of bodies, therefore, the complete form, to which the species corresponds, is formed by the entire *group* of those representative sensations which are referred to the same *sensible basis* and, therefore, to the same being, and this form individuates the body. But is this individuation perfect? Is there in a body an absolute individual?

* See *Anthropology*, Bk. IV, nos. 782-788. The ancients, not having yet a complete *philosophical language*, expressed their thoughts on *individuation*, as on other subtle questions, in a somewhat confused way. They often confounded the *individual* with the *subsistent*. Hence the Aristotelian dictum, "Matter is the principle of individuation," was taken by them to mean that matter is what causes the individual to subsist. But when their attention fell on individuals devoid of matter, they made an exception to their rule, and said that in the case of these the *form itself* must be subsistent. Thus St. Thomas says: "*Sed illa forma quæ non est receptibilis in materia, sed est per se subsistens, ex hoc ipso individuatur quod non potest recipi in alio*" (*Sum. Theol.*, Pt. I, q. iii, art. ii, ad 3m). Consequently, they could not conceive how form could individuate unless it were subsistent. Hence St. Thomas again says: "*In his vero quæ non sunt composita ex materia et forma, in quibus individuatio non est per materiam individualem*, OPORTET QUOD IPSÆ FORMÆ SINT SUPPOSITA SUBSISTENTIA; *unde in eis non differt suppositum et natura*" (*Ibid.*). The truth, therefore, is, 1.° That the form is always what individuates; 2.° That the form is either *ideal*, and is known in the species, and this individuates the ideal being and is the principle of individuation (of the specific individual), but does not multiply the being, is not the *principle of the multiplication of individuals;* or else it is *real*, and then it is *the principle of the multiplication of individuals*. Moreover, the forms of matter require matter in order to subsist, but they do not receive from it their capacity to individuate or to multiply individuals. Finally, as the ancients confounded *matter* with *subsistence*, so they confounded *form* with *species* or idea, and therefore said that what is pure form is *intellectum in actu* (St. Thomas, *Sum. Theol.*, Pt. I, q. lxvi, art. ii), which is true only of God, in Whom there is no difference between the ideal form and the real form or subsistence. It is not true of the Angels, who are understood, not through their subsistence, but through the idea.

Or do we think the individual in a body by a subjective cognition, in virtue of that ontological law which obliges us to give to whatever we think the form of being and, therefore, individuality, without which there could not be a being? Such is the question we have now to answer.

We have touched upon it elsewhere, and have said that bodies derive their true individuality from the spirit whose term they are, and do not possess it in themselves, because, taken by themselves alone, apart from the spirit, they are not complete beings, and hence merit the appellation of *non-beings*, an appellation, however, which distinguishes them from *naught*.* Detached from their principle, they do not subsist, but are only something of a being, corresponding to an abstract concept of the mind. When, therefore, men consider bodies as individuals, they do so in virtue of the law of *subjective synthesis*.

1643. Now of bodies as united to the spirit we may speak in two ways, that is, either according to what we know of them through sense-experience, or according to certain reasonings having at least a conjectural value. In the former case, our knowledge is that to which all the words invented to express corporeal things correspond; in the latter, these things are considered as effects of a simple agent, foreign to man, called corporeal principle, and under this aspect there is no language that can with propriety be applied to them. At all events, if it is true that this *corporeal principle* acts on our spirits and produces in them the effect of the sensible basis and of the sensations in which it is *clothed;* bodies must be admitted to have also an individuality borrowed from this their proximate cause, and what might be said of this kind of individuality is altogether similar to what may be said of that individuality which they have as the term of our spirit. Let us, therefore, speak of this.

* This word *non-being* (μὴ ὄν) seems to us a very precious one, and, if defined as we define it, namely, as "that which is on the way to be a being, but is not yet" (an abstract concept), it serves to interpret in a very reasonable way many utterances of the ancient philosophers, which otherwise would be absurd.

1644. This individuality which we attribute to bodies is of two kinds; for one may consider either, 1.° the corporeal elements, which we assume to be extended and continuous, or 2.° the bodies composed of these elements. The corporeal elements have no other individuality than that which they derive, 1.° from the continuity of the extension which they occupy, 2.° from the sensible diversity of that extension. Now, the *individuality* which has for its basis the *continuous* is not a true individuality, because it does not impart to the being any proper unity, since even in the continuous every assignable space is outside of all others and, therefore, does not form a single and identical being with them. Hence we see that such unity as can belong to the continuous comes to it solely from the sentient principle to which the whole of it is present, and which through that very circumstance constitutes it. It is, therefore, by a subjective synthesis on the part of the rational principle that man attributes to the elements that individuality which belongs solely to the *sentient principle*.

1645. As to composite bodies, on the other hand, they are either inorganic or organic. Inorganic bodies are still less susceptible of unity and individuality than their elements; but the rational principle attributes it to them, both by the ontological law which it must follow in thinking things, and by the psychological law of subjective synthesis. In this process, nevertheless, it is aided by the composition of the attractive forces belonging to the constitution of the external world, on account of which composition a body having a centre of gravity seems to have a single force determining it to one direction or position. But since that force or cause of motion does not, by itself alone, constitute the being of the body, and is an abstraction, it follows that the individuality which may be attributed to a body by reason of the concentration of its forces is only an abstract and not a specific individuality.

1646. Can a better basis be found for the individuality of bodies in their organisation?—We reply that this organisation may be considered in two ways: 1.° either as an

effect of insensitive, brute forces, or 2.° as formed and dominated by a sensitive principle. In the former case, the unity and individuality resulting from those forces is still an abstraction, being merely attributed to the body by the rational principle in the act of conceiving it, in virtue of the law of subjective synthesis. In the latter case, the sensitive principle, in its perfect unity and simplicity, contains the true basis of the individual; but then the individual is no longer the body but a compound of (sentient) principle and (felt) term; for in truth this compound is one and indivisible.

1647. From what has been said we may derive a rule enabling us to understand what the specific idea is. We can see that it is that idea which makes us know a being, and that individuated. Now in order that it may make us know a being, it must give us knowledge of the *sensible basis of the being*, or of something that answers the same purpose, acts as a subject, as a proximate cause, in a word, as a centre of union for that group of qualities which determines it. If these qualities are conceived as clothing the being, we then have the *full* specific idea, and if they are abstracted, so as to retain merely the relation which the *basis* of the being has to them, we have the *abstract* specific idea.

1648. But we have also described another synthesis which the rational principle makes, guided by those different feelings into which several different sensations representing different beings are merged and resolved in the sentient principle, for example, the various sensations which bring to the soul the feelings of joy, sadness, &c. These feelings become, as it were, the cord which binds together in the thought the actions of beings the most different, and is another source of the genera which the human spirit composes for itself.

1649. Again, the human spirit, when it has arrived at the free use of its faculties, makes syntheses of all kinds, binding together arbitrarily any assemblage of things and considering it as a unity. This assists it admirably in finding

the way to shorten the processes of its reasonings, as may be seen in algebra, for example, in the calculation of analytic functions, in which a function of one or more letters represents in a single aspect all the numberless modes in which that letter or those letters may be combined between themselves, or with other quantities; and these same letters are already a synthesis of any number of unities connected in any way we please according to the needs of the calculation. In order to make these syntheses at will, the rational principle uses signs, any one of which may, of course, represent many different things according as the calculator may have determined upon. Hence the *complex ideas*, any one of which may make known any group of other ideas, the last of these being the idea of *whole*.

1650. At the same time this idea is not arbitrary, but has its basis partly in the unity of universal being, outside of which there is nothing, as Parmenides observed.* We cannot say that it is equally based upon the organism of the universe, because we might think the *whole* even if the universe were not organised or collected, as it is, so to speak, into one great being. On the other hand, the universe, properly speaking, is not the *absolute whole*, but only the *relative whole*.

* Οὐδὲν γὰρ ἔστιν ἢ ἔσται
Αλλο πάρεξ τοῦ ἐόντος.

Karsten, *Frag. Parmen.*, vv. 95, 96.

CHAPTER XXXIII.

CONTINUATION.—LAW OF SUBJECTIVE ANALOGY.

1651. The ideas of beings, then, whether specific or generic, are formed by man in that limited way in which he communicates with beings through feeling, and in this process he is limited by certain laws, some of which are cosmological and come from the *term* of his feeling, while others are psychological and come from the soul, which turns, in accordance with its nature, to respond to those terms which are presented to it. But what the terms of feeling present to the sense are not the beings, but only signs which represent them to the rational principle, that is, actions and effects which receive their fashion and character from the nature of the recipient itself, that is, from the soul, which is the true *efficient cause* of them, the agents foreign to it being only *exciting causes*. By his natural feeling, therefore, man is not in direct communication with beings in themselves. With these he communicates only through his understanding. Since, therefore, the understanding (whose proper object is being) is obliged to know beings from their representative signs, it cannot in the cognition of them go beyond what these signs are fit to indicate. Man is, therefore, limited in his knowing by the limited matter given him to perform his rational acts upon. This, however, does not prevent him from acquiring many cognitions possessed of absolute truth with regard to beings.* Hence we see how vain that philosophy is which asserts (I say "asserts," because it gives no proof for its statements) that "the order of man's cognition perfectly corresponds to the order of beings;" which is nothing less

* *Restoration*, Bk. III, chap. xlvii.

than transforming man into God. We will not waste time in refuting a paradox disowned by all the saner schools of philosophy. We will rather proceed to indicate the law of subjective analogy.

1652. This law is a new limitation added to human knowing. Indeed, if even the cognition of those things of which man has sensible perception contains so much that is limited and subjective, how much more will the capabilities of his understanding be curtailed when he undertakes to argue and draw conclusions concerning that of which the sense gives him no indication, no perception?

Now it is exactly in reference to those beings with which the sense does not immediately communicate, and from which man, therefore, receives no action, modification or other effect, that analogy comes into play. What, then, can man know of such beings?

1653. We have divided all human cognitions into two great classes, which we have called that of *intuition* and that of *predication*.

Intuition, pure and simple, cannot make known to us anything but universal being.

Predication, on the other hand, begins with the sensible perception of subsistent being. Having such perception, we know the *form* of this being in the *species*, that is, in universal being limited by the sensible effect which is referred to it; and we know its *subsistence* in *affirmation*. Subsequently we analyse the form or the matter, and thus know its abstracts and its parts. Later still we synthesize; and finally, confronting several beings, we bring out their various relations.

1654. Now if *perception* is not given to us, we lack the foundation for the whole of this work. What can take the place of this foundation? I answer:

1.° Words or other signs, which have no virtue representative of the being in question;

2.° Ontological relations between the beings that have been perceived, and the unperceived being which one seeks to know.

Now those beings which do not come within human perception are of two kinds: 1.° those which are prevented from coming within it by an accident, as in the case of a man who from having been kept all his life in the dark, or having been born blind, has never seen colours; 2. those which are naturally alien to, and therefore beyond the range of, the human sensories, or the natural human feeling, as, for example, pure spirits.

As regards the former class of objects, there are no ontological relations except through words; because as these objects are contingent beings, which the intuition of universal and necessary being alone cannot reveal, there remains no other means of knowing them except *non-representative signs*. Such are the words which make up the discourse of a person who talks about colours to a blind man: they do not in any way represent the colours to him. What, then, do they mean to his understanding? Just so much as colours have in common with sounds, and other feelings, or sensible beings of which he has had perception. But this common element is so slight that it constitutes, not a *similitude*, but merely an *analogy*.

1655. What then is *analogy?* What sphere of knowledge does it comprise?—Analogy is not based upon *feeling*, but upon *proportion*. In fact, among specifically different beings there are often similar proportions. The great, the small, the simple, the multiple, the greater or lesser multiplicity or numerousness, &c., constitute properties belonging to beings, not in so far as they are sensibly perceived, but in so far as they are beings, or pertain to a given genus of beings, for example, the genus of the contingent; and these generic and ontological characteristics or marks do not establish any similitude between beings, but merely what is called *analogy*.

1656. Non-representative signs, therefore, impart to man an *analogical* knowledge of such beings, whereby at the same time he acquires the knowledge of their subsistence. He does not acquire the knowledge of their *positive forms*, but, instead, a knowledge of certain *determinations*,

which are sufficient to prevent him from confounding them with other beings, and which may be called *analogical forms*, substitutes for positive forms.

1657. The same may be said of the Angels, who are likewise contingent beings; only that, as they are complete beings and not mere accidents, like the colours, &c., they may also make themselves known by certain *effects* produced by them—not, however, immediate and representative effects like those wherein we feel the immediate action of a being in us, the action which represents to us its nature; but those mediate and external effects from which we infer its subsistence and some of its endowments or powers. Now such effects are wont to be referred to powers similar to those whereof we have positive knowledge, except that we conceive these powers as of greater efficacy, if the effects, without differing in kind, differ in amplitude from those which we observe in nature. Nevertheless we can never be certain of the exactness of this similarity, because we know that sometimes there are those causes to which the ancients gave the name of *equivocal*, and which do not resemble their effects except in a virtual and eminent way. In this case the concept of such causes or powers could be for us only *analogous* to the causes or powers known positively.

1658. But as regards the knowledge of the absolute and infinite being, that is, of God, it may come to us from three sources:—

1.° From *revelation*. Apart from the internal light of grace, this gives us only an *analogous* knowledge, for the simple reason that it is communicated to us by means of words only, that is, of non-representative signs;

2.° From the *effects*, that is, from the creation, &c. These also give us only an *analogous* knowledge, because we do not see the mode of the action which produces them, and know only by ontological reasoning that here the cause is equivocal to its effects and supereminent;

3.° From ontological *reasoning*. This again gives us *analogical* cognitions of God, but at the same time shows

us that such cognitions are merely analogical and, therefore, altogether insufficient to make known to us the Supreme Being positively. It shows us, moreover, that whereas the beings which can be known to us positively are known in two ways: (1) in their essence by way of species [intuition], (2) in their subsistence by way of feeling and affirmation; a positive knowledge of God cannot be had in either of these ways taken separately; hence there must be a third mode of intellective vision or apprehension, of which we have no example in nature, but which is of such a kind that the subsistence is perceived in the idea itself.

1659. We must, therefore, distinguish two operations performed by our minds with respect to the Supreme Being: the formation of an analogous knowledge, and the knowing that this knowledge is inadequate and imperfect. This is the highest knowledge that we can have of God by natural means. But we will explain more clearly this analogical knowledge.

1660. In the first place we must lay it down as a certainty that man has not by nature the vision of God. Those who say that he has commit an error opposed alike to revelation, to theological science, and to philosophy, which in this is simply the interpreter of the general sense of men. Revelation tells us that "No man hath seen God at any time, nor can see Him."* Theological science teaches that we do not know *what* God is, but only *that* He is, and hence cannot even know this except by argumentative inference.† Philosophy finds, that in order to account for human cognitions it is indeed necessary to admit that man knows "what being is," and therefore has the intuition of "being" but nothing more, not the intuition of the First Being. Hence the greatest of Italian philo-

* 1 *Timothy* vi, 16; *John* i, 18; 1 *John* iv, 12.

† *Hæc propositio,* Deus est, *quantum in se est, per se nota est; quia prædicatum est idem cum subjecto; Deus enim est suum esse.—Sed quia nos non scimus de Deo quid est, non est nobis per se nota, sed indiget demonstrari per ea quæ sunt magis nota quoad nos, et minus nota quoad naturam, scilicet per effectus* (St. Thomas, *Sum. Theol.*, Pt. I, q. ii, art. i.—See also *Theod.*, 55-60, 75-78).

sophers and theologians writes: "*Veritatem esse* IN COMMUNI *est per se notum, sed* PRIMAM VERITATEM *esse, hoc non est per se notum quoad nos,*"* and recognises that the intellective virtue or power would not be if it had not in it a certain *similitude* of God,† which is not God, but is *universal being*, which may fitly be said to resemble God, not indeed as two real beings resemble each other, but as a real being resembles its ideal essence which makes it known; since the realisation of an essence may be said to resemble that essence, although it would be more proper to say that the ideal essence is the similitude of the realised being, which is, therefore, known through and in it.‡

1661. Setting aside, therefore, the error that the object of man's natural intuition is God, it remains to consider what cognitions it is possible for us, by natural means, to attain of this Being Who is superior to nature.

Universal being in so far as intuited by our mind does not make any real being known to us, so that by it alone we should not even know that such a thing as a real being existed. Moreover, since it is a light perfectly simple and uniform, nothing is distinguished in it, not even the elementary ideas; for all ideas, except that of being, are always reducible to relations which real things have to ideal being, or to relations between relations, or else to abstracts of such relations discovered through different glances of our spirit. Consequently, even the first principles of reasoning, which are applied ideas, are not naturally possessed by man, but are formed by his referring real beings to universal being.

Hence it is that the highest ideas, and even the highest principles, retain something of the limitation belonging to the real beings, from which they have been derived through

* *Sum. Theol.*, Pt. I, q. ii, art. ii, ad 3m.

† *Cum ipsa intellectiva virtus creaturæ non sit Dei essentia, relinquitur quod sit aliqua participativa similitudo ipsius qui est primus intellectus. Unde et virtus intellectualis creaturæ lumen quoddam intelligibile dicitur, quasi a prima luce derivatum* (*Sum. Theol.*, Pt. I, q. xii, art. ii). Here, however, we must distinguish the objective light of the intellect from the subjective power of the same intellect which is illumined by that light.

‡ *New Essay*, vol. iii, 1180-1189.

the action of our spirits; and real beings are those which we perceive through the sense, and first of all the corporeal beings. Universal being alone has no limitation, and it is what gives to man the power of knowing the limitations of his ideas themselves, and of avoiding the error of taking as unlimited and absolute that knowledge which is limited and relative; thus insuring to him the possession of truth.

1662. Let us take as examples some of the more general ideas, which are afterwards converted into directive principles of reasoning.

1.° *Essence* and *subsistence*. The things which fall under our perception, being contingent, have not their *subsistence* in their *essence itself*, and, therefore, they may be thought without at the same time being actually subsistent. Hence when we think an *essence*, and pronounce the word that signifies it, we do not mean to include *subsistence*, but posit the first without the second. This is the only concept we have of the essences of things, and, consequently, the only language whereby to express ourselves in regard to them. When, therefore, we think of God, Who does not come under our perception, we apply to Him the concept of *essence* thus limited, and also the similarly limited concept of subsistence, and reason about Him after the analogy of the things known to us in this manner. Not having, therefore, any term to express the identity of essence with subsistence, which alone would properly express the Supreme Being, we are obliged to apply to Him two imperfect terms, and speak of the *divine essence* and the *divine subsistence* separately as if they were two things; nor could we without error attribute to the essence of God what belongs to His subsistence, or *vice versa;* although in God the two are one and the same thing. Hence, as theologians wisely observe, we may say with truth that God (subsistence, subsistent person) generates God (another subsistent person); but we cannot say that Godhead (the essence) generates Godhead (another essence). This second proposition would posit a plurality of Gods, whereas the first posits only a plurality of persons, because the substantive word *God*,

taken to mean subsistence, is equivalent to the word *person*. It is true that subsequently ontological reasoning (in which our reasonings carried on by means of derivative ideas are compared with universal being) corrects the limitation of our thought, and shows our language to be imperfect; but at the same time it has nothing to offer as a proper substitute. It protects us from error, but fails to give us other ideas or other terms suited to the Divinity, which would enable us to reason with strict accuracy about it. Hence we are always left under the necessity of adopting the roundabout method of first reasoning about God with imperfect ideas drawn from contingent natures—the only ideas we have — and afterwards recognising that this reasoning of ours is imperfect, limited, inadequate, without being able to change it into a more perfect one, unlimited, and adequate to the great subject.*

1663. 2.° *Generic essence, abstract specific essence, full specific essence* (formed, individuated). In God these distinctions do not exist; and yet the ideas by means of which we reason (and we have no others) belong always to one or another of these three modes. The words also which we use in reasoning mark these three modes of ideas. Hence even in reasoning about God, we cannot help using such terms and such ideas, although they are altogether inadequate to and disaccordant with the Divine Being.

Wisdom, goodness, power, &c., are generic ideas expressing the abstract perfections of beings; *Godhead* is an abstract specific idea; *God*, taken as a common noun, denotes a specific essence, full, individuated; taken as a proper noun, it denotes a subsistent person. Now, with these

* *Licet autem, secundum rem, sit idem Deus quod Deitas, non tamen est idem* MODUS SIGNIFICANDI *utrobique. Nam hoc nomen* DEUS, *quia significat* DIVINAM ESSENTIAM IN HABENTE, *ex modo suæ significationis naturaliter habet quod possit supponere pro persona. Et sic ea quæ sunt propria personarum, possunt prædicari de hoc nomine, Deus, ut dicatur quod Deus est genitus vel generans. Sed hoc nomen* ESSENTIA *non habet ex modo suæ significationis quod supponat pro persona; quia significat* ESSENTIAM UT FORMAM ABSTRACTAM. *Et ideo ea quæ sunt propria personarum, quibus ab invicem distinguuntur, non possunt essentiæ attribui. Significaretur enim quod esset distinctio in essentia divina, sicut est distinctio in suppositis* (St. Thomas, *Sum. Theol.*, Pt. I, q. xxxix, v).

ideas we reason about the Supreme Being, and apply to Him the words which express them. But in God, properly speaking, there is neither generic essence, nor abstract specific essence, nor full specific essence. He is a subsistent Being, perfectly simple, without division of any kind. Nevertheless we place division in Him by applying to Him those ideas taken from the perception of contingent things, in which there really are the distinctions which those distinct and separate ideas make known to us. Not having, in this life, any other means of knowing except the use of these ideas, we are compelled to have recourse to it also in our attempts to know God and, in part, we thus come to know Him truly; because the supervening ontological reasoning makes us aware, 1.° that all those perfections which outside of God are separate, in God are God Himself; * 2.° that the Godhead which we conceive as an abstract form, in God is the subsistent God Himself; † 3.° finally, that the word *God*, which we frequently take as a common

* Hence St. Thomas, treading in the footsteps of ecclesiastical tradition, wisely says: "*Primo considerandum est, quod ratio cujuslibet est quam significat nomen ejus, sicut ratio lapidis est quam significat nomen ejus. Nomina autem sunt signa intellectualium conceptionum: unde ratio uniuscujusque rei significata per nomen est conceptio intellectus, quam significat nomen.—Intellectus autem noster Deum comprehendere non potest, nec* IPSUM IN ESSENTIA SUA VIDERE IN STATU VIÆ, *sed aliqualiter ex rebus creatis ipsum cognoscit. Diversæ autem perfectiones rerum creatarum, puta sapientia, voluntas, et hujusmodi, repræsentant quidem imperfecte divinam perfectionem.—Et similiter intellectus noster* EX REBUS CREATIS SCIENTIAM ACCIPIENS PER DIVERSAS CONCEPTIONES ASSIMILATUR UNI DIVINÆ ESSENTIÆ, LICET IMPERFECTE. *Sic igitur bonitas, sapientia, et potentia, et si quid aliud hujusmodi de Deo dicimus,* DIFFERUNT RATIONE PROPTER DIVERSAS CONCEPTIONES INTELLECTUS NOSTRI, *sed idem sunt re, quia essentia divina est una et eadem, quam intellectus noster* DIVERSIS CONCEPTIONIBUS *repræsentat; sicut etiam diversæ res repræsentant essentiam divinam diversis formis. Sic igitur sane intelligi potest quod primo ponitur. Quia omnis perfectio est in Deo verissime, cum alia sit sapientiæ, alia bonitatis verissima ratio, oportet quod hæc in Deo differant ratione; quia vero modo simplici in ipso sunt, sunt idem re*" (*Opusc.* viii, *De Articulis* cviii, *sumptis ex Opere Petri de Tarantasia*). In this passage we must observe that the expression *in Deo differunt ratione* means *secundum diversas conceptiones intellectus nostri*, as is afterwards explained, and therefore places no *real distinction* in God Himself.

† This, again, is the teaching of the wise philosopher of Aquino: "*De rebus simplicibus loqui non possumus nisi per modum compositorum,* A QUIBUS COGNITIONEM ACCIPIMUS; *et ideo de Deo loquentes utimur nominibus concretis, ut significemus ejus substantiam; quia apud nos non subsistunt nisi composita; et utimur nominibus abstractis ut significemus ejus simplicitatem. Quod ergo dicitur deitas, vel vita, vel aliquid hujusmodi esse in Deo, referendum est ad* DIVERSITATEM QUÆ EST IN ACCEPTIONE INTELLECTUS NOSTRI, *et non ad aliquam diversitatem rei*" (*Sum. Theol.*, Pt. I, q. iii, art. iii, ad 1).

noun, and hence apply it, though improperly, to several beings, does not express a *species*, but a true subsistent being. But the reasoning which tells us that this must be so with respect to the Supreme Being, does not explain to us *how* it is so, in other words, does not cause us to see any subsistent perfection, any subsistent abstract species, any subsistent full species. Hence it tells us what God is not (*i.e.*, that He is not anything divided into genus, species and subsistence), but does not reveal to us the nature of "a subsistence which in its simplicity includes that which has genus and species;" it does not show us, does not cause us to perceive, to think such a subsistence any more than the definition of colour causes a blind man to represent colours to himself. It shows us the terms, but not their *nexus*, in which the Divine Being consists.

1664. These are principles common to all theologians, and to the most famous philosophers; and as they are immutable, so they prove that there is direct opposition between the Catholic faith, as well as between philosophic reasoning, and that system which teaches,

1.° That the order of our conceptions is perfectly on a par with the order of things. This is not true in the case of divine things, and of all those which do not fall under our perception;

2.° That God is the object of the natural intuition of the human mind. If this were the case, the human mind would have conceptions adequate to the Supreme Being.

These two statements are two errors most grave both in themselves and in their consequences, one of which is pantheism.

1665. Let us conclude:

1.° About God and things that do not come within our perception, we are, in virtue of a subjective law of our rational principle, obliged to reason according to the *analogy* of the things perceived by us;

2.° This reasoning leads us to a knowledge which is negative and limited, but true, not false;

3.° To reach this knowledge—the only one possible for

us with regard to such things—we must take our ideas as they are, without capriciously confounding or altering them. In like manner we must use current terms in their ordinary meaning, in accordance with the important rule of the School: "*Ad veritatem locutionum non solum oportet considerare res significatas, sed etiam modum significandi*" (*Sum. Theol.*, Pt. I, 9, xxxix, art. iv, v);

4.° Finally, ontological reasoning is what makes us aware of the limitation and imperfection of our knowledge, and so shields us from error; because he does not err who, having a limited and imperfect knowledge, knows that it is such, and does not take it for positive and perfect knowledge. And this mental attitude is the only thing that comes up to complete conformity with absolute truth, so that the order of beings corresponds to what this last way of reasoning puts in our minds. It is little enough, no doubt, and yet, we repeat, it is enough to shield us from error, enough to enable us to use our other imperfect cognitions to our advantage, without any illusion.

CHAPTER XXXIV.

PSYCHOLOGICAL LAWS CORRESPONDING TO THE COSMOLOGICAL LAWS WHICH DIRECT THE PRACTICAL REASON. —PSYCHOLOGICAL LAW OF SPONTANEITY.

1666. As we have reduced the cosmological laws of the rational principle—that is, the laws which the nature and order of the world impose upon it—to two, that of *motion* and that of *harmony;* so, likewise, we may reduce to two the psychological laws corresponding to them, conformably to what we have said, that in the operation of the rational principle something is due to the exciting term, and something to the activity of the excited principle itself. In so far as this principle, on receiving the excitation, adds to it something of its own, it acts according to the law of spontaneity; and in so far as, on receiving the harmonious elements from the world, it further contributes something of its own energy in order to render its action harmonious and, as such, enjoyable, it exhibits in itself a law of harmony which completes and informs the harmony of the world. To this harmony we give the appellation of *psychical*, thus to distinguish it from that harmonious matter (if we may so call it) which it receives from the action of things different from it.

1667. Although, therefore, we have now to discourse on spontaneity, we will not stop to describe its nature, having done so elsewhere.* We will merely touch upon some of the more special characteristics and accidents which it manifests in its acts, and which are most apt to escape observation. Of these accidents the two that most deserve

* *Anthropology*, Bk. II, 439, 440.

to be considered are: 1.° that spontaneity sometimes acts in man secretly, that is, without his being conscious of it, and 2.° that the terms of man's rational attention are the only things in which he feels an interest, and of which he becomes readily conscious.

ARTICLE I.

Man's Direct Life, and Life of Reflection.

1668. By what we are now about to say we shall complete what we said before respecting consciousness.

We have seen that ideal being, the object of man's natural intuition, does not by itself alone impart to him any consciousness, and that for the formation of consciousness a stimulus or real term is required.* This is the first condition, but it is not the only one.

We added another when we observed that, in order to bring about consciousness, the human principle must have its rational attention directed to itself by the feeling of that need which we have described as "the instinctive tendency to complete an action once begun" (570-580). Nor would there be any force in the allegation that man ought at once to be moved to form the consciousness of himself for the simple reason that this is naturally a pleasurable thing to him; for the mere absence of a natural pleasure is not by itself a need, nor does pleasure become a need so long as it is not experienced.

1669. In continuation, then, we will observe,

1.° That consciousness does not belong to the knowledge of *intuition*, but to that of *predication;*

2.° That the rational activity has two stages, in the first of which man (still unconscious) enjoys *truth*, in the second, enjoys the *possession of truth* (that is, when he has arrived at the consciousness of such possession).

* St. Thomas means the same thing when he lays down the principle that "*Intellectus intelligit se ipsum sicut et alia*" (*Sum. Theol.*, Pt. I, q. lxxxvii, art. i), in other words, that the intellective principle does not know itself by its own nature, but has to acquire the knowledge of itself (which is consciousness) just as it has that of other things.

What is said of enjoying must equally be said of knowing. At the first stage, man knows truth; in the second, he knows that he knows it (has consciousness of it). And this is applicable, not only to truth, but also to every good and every evil. At the first stage, man enjoys good and suffers evil; at the second, he is pleased with the enjoyment of his own good, and feels pain at suffering his own evil. These two stages constitute two very different states of man, which are not at all easy to distinguish. The philosopher is the man of reflection and consciousness, and, therefore, he readily stops at the second stage, and disowns what is in the previous feeling and does not enter into his consciousness.

1670. It follows, that in man there are two principles of action; by the one he tends to unite himself to his term and to enjoy it, by the other he tends to know and enjoy his union with his term, *i.e.*, to have consciousness of his own enjoyment.

The former of these principles of action and stages of activity constitutes man's *direct life*, the second his *life of reflection*.

1671. The man who lives the life of reflection because of his being constituted in the second stage of activity, and his operating with the second of his active principles, is identified with this principle. The reason of this is, that "Man is actually the principle which operates." When he operates with the first principle, he is actually the *direct principle;* when he operates with the second, he is actually the *reflex principle;* because for him to "operate," and to be the "operating principle," is one and the same thing. If, then, in the operations of his life of reflection man is the *reflex principle*, what wonder is it if he deny his previous state, and come to believe that all that takes place in him is accompanied by consciousness? Certainly the *reflex principle* cannot know the state on which reflection has not fallen. It therefore denies whatsoever does not enter into its sphere, whatever is not reflex.

1672. It is as a reflex principle that man speaks a lan-

guage complete in all its parts, and that he deals becomingly with his fellows. Social life is, for the most part, a life of reflection, so that if this kind of life were to disappear from the world, society would be dissolved and human intercourse would be impossible. Hence the superior excellence of this life as compared with the direct.

1673. And yet it must not be supposed that the good of the reflex life is more excellent than that of the direct. The good of the direct life is fundamental good, good itself; the reflex life is only another way of enjoying the good supplied by the direct life. The reflex life, therefore, though more elevated, more luminous, more attractive, is not more noble, or more precious, than the primitive and direct life.

1674. On the other hand, it must not be supposed that the reflex life extends always to all the goods (or, for that matter, to all the evils) of the direct life. While man lives the reflex and social life, he performs very many actions that belong solely to the direct life, actions of which he is not conscious and does not speak. These begin, develope and are completed within him in profound silence; and yet they are of immense importance to human subsistence and happiness. Two active principles, therefore, operate, the one in presence of the other, and man is now the one and now the other; but the one operates silently and, so to speak, in the shade, the other is loquacious and runs freely through an open and luminous field.

1675. By means of this theory, and this alone, can we explain many human facts, among which I shall mention the pleasure afforded by sleep.

It is an undoubted fact that when a man has been long awake, or has exhausted his strength with hard labour, he feels the need of sleep, and finds the greatest delight in abandoning himself to it. I have known men who preferred the pleasure of a placid sleep to the keenest enjoyments of life. Now what is sleep but an animal function in which man loses, at least in great part, the consciousness of himself, and the power of acting with free reflection? And yet man feels delight, both, in passing from wakeful-

ness to sleep, in which he gradually loses consciousness, and in sleep itself, during which consciousness is lost. Of course, it cannot be said that the pleasure of sleep consists in *foreseeing* the advantage that will come from it, the truth being that this pleasure consists in losing all foresight, and that as long as foresight lasts in the mind there is no sleep. Nor, again, can it be said that the pleasure in question arises from feeling, after one awakes, that one's animal forces have been restored; because the delightful feeling which follows a sound sleep is a pleasure belonging to the state of wakefulness, and not to that of sleep, which is already past. When, therefore, a man feels eager to lose consciousness by passing from wakefulness to sleep, then the pleasure of the *direct life* prevails over the pleasure of the *reflex life*, and man desires that the latter should cease for a time in order that he may more fully enjoy the former. Thus, there is a kind of equilibrium between the two lives, a balancing of the pleasure and need of the one against the pleasure and need of the other, with the result that now the one prevails, and now the other. Hence the two lives, in other words, waking and sleeping, alternate incessantly.

1676. Here the question spontaneously presents itself: Which man is it that desires the transition from waking to sleeping, and the state of sleep itself? Is it the one consisting actually in the *reflex principle*, or the one consisting actually in the *direct principle?* To convince us that it is the man of the direct, and not of the reflex principle, a very simple experiment will suffice. Let a person who is in the act of falling asleep think of what is just going to happen in him, that is to say, let him think of the cessation of his reflex thought, and of that very thought with which he is observing by what steps sleep comes about; he will feel a kind of horror at it. I have several times tried this experiment, and I have always seemed to dread the approach of sleep as the approach of a kind of death. It was the reflex principle that felt this horror, because it foresaw the annihilation of its action. The pleasure of sleep, therefore, does not belong to the reflex, but to the direct principle.

The former shrinks from it; the latter enjoys it. This proves that a man who lives the reflex life does not, on this account, emerge entirely from the direct life. He enjoys partly the one, partly the other, although with different actualities, the one unknown to the other.

ARTICLE II.

The Limitation of the radical force of the Soul sometimes suppresses, sometimes limits Reflection.

1677. The direct life and the life of reflection are two actualities, which are developed from the essence of the rational soul. They belong to the order of second acts, they do not constitute the first act, the essence, the radical force of the soul.

Now the soul, being a limited being, has a limited radical force. I do not mean limited in the sense that it may not increase indefinitely through increases in its terms, since in this respect its receptivity is unlimited; but limited in the degree of intensity with which it can adhere and bind itself to the terms that are given to it. Hence the more of its force is put forth in one actuality, the less there is left of it for another. Hence the radical activity of the soul might be totally exhausted in the actuality of the direct life, so that none of it would remain for the life of reflection. In this case consciousness would altogether cease, because the act of reflection would cease.

1678. I will go further and say, that reflection may be hindered and suppressed not only by the excessive actuality of the direct life, but even by a single act of it. This truth has been expressed by Dante in the following lines:

> "As here we sometimes in the looks may see
> Th' affection mark'd, when that its sway hath ta'en
> The spirit wholly." *—(*Cary's Translation.*)

Moreover, as the poet philosopher observes, besides the possibility of reflection and consciousness ceasing in the

* *Paradiso*, xviii, 20-22.

act during which the activity of the soul is absorbed in some of its terms, no memory remains of it after this absorption has passed away. The reason is because the actual memory is an act of reflection upon the past, and therefore, as in the act itself there was no reflection, so there can be none when the act is past, unless perhaps some obscure reflection owing to traces of that act remaining in the soul in the form of habits. Hence he says:

> "——; nor through distrust
> Of my words only, but that to such bliss
> The mind resents not without aid. This much
> Yet may I speak; that as I gazed on her,
> Affections found no room for other wish."*
>
> (*Cary's Translation.*)

1679. But in the present life the radical and total force of the soul, being limited, when it has exhausted itself in one actuality, does not continue in that state except for a short time. The intensity of the effort made in that act, though in the highest degree pleasant, is excessively fatiguing. Hence the soul, by a *spontaneous instinct*, aided, however, by corporeal stimuli, soon returns to the life of reflection. Thus in this fact also there is a kind of alternation between the direct and the reflex life.

1680. Moreover, it sometimes happens that this radical force is exhausted, not in a single act, but in two, three, &c., in an assemblage of acts. Now, whether these acts be few or many, as soon as the radical force is exhausted, the soul has no more of it to employ in new acts of reflection; consequently, reflection remains limited within a certain sphere, left free by the actuality of direct life.

1681. Here we would again observe that, since what regulates in man the proportion between the dominion of direct life and that of reflex life is, more than anything else, the spontaneous action of the soul, it must, as we said before, be admitted that man finds enjoyment in one as well as in the other of these lives, and that he sometimes prefers

* *Paradiso*, xviii, 9-13.

the pleasure of the first to that of the second, desiring that the latter should be suppressed in order to make room for the former; because spontaneity always follows what is most pleasurable.

The example which we cited in proof of this was that of the craving for sleep, a phenomenon which belongs to the animal life and the fundamental rational perception. But who does not see that we might equally well adduce examples drawn from the purely rational activity? Who has not heard of the fact of ecstasy? Who does not know that this degree of intense contemplation and complete love is the most delightful thing possible for man, in fact, a delight exceeding all delights? And yet ecstasy necessarily causes the suppression of all reflex acts and of consciousness. Nevertheless, man cannot desire anything that gives him greater satisfaction than this kind of sleep of the intellect, and of the spirit absorbed in the object of ecstatic contemplation, and thus rapt from itself and sunk in full oblivion, in a kind of most delicious death exuberantly full of life. So true is it that the delights of the life of reflection are not the greatest, and that man in the present life may enjoy the object-good much more than the consciousness of such enjoyment, and may prefer to enjoy a larger amount of the former even at the sacrifice of the consciousness of it.

ARTICLE III.

Man's life can never be purely one of Reflection, but must always remain partly Direct.

1682. Finally, we may observe that, even as the adult cannot live entirely a direct life, like the child that has not yet arrived at the use of reflection, so he cannot live exclusively the life of reflection for never so short a time.

1683. This will be understood by considering that the act of reflection is called reflex with reference to its object; in other words, an act is reflex if its object is something that has been already thought and not merely felt. Hence

no act can be called reflex relatively to itself, as though it were a reflection made on itself. A reflex act is not an object to itself, but in order to be rendered an object, it requires a new and higher act by which the mind reflects on it. Now, since the series of reflections must be limited, it follows that the last reflection has none above it to cognise it: hence it remains unknown, outside of consciousness, and therefore belongs to the direct life. Hence, the actuality of human life can never be entirely exhausted in reflection. Something must always remain in man upon which he has not reflected, something, therefore, unknown to him.

ARTICLE IV.

In human Reasonings, Reflection falls upon the last link of the Rational Operation, and not upon the preceding ones: this fact explains those reasonings which men make unconsciously.

1684. Now, in order satisfactorily to explain the phenomena of the reflex life, it is most important to attend to this fact, that, ordinarily speaking, man's reflection does not stop until the last link of any rational operation whatever is reached; because it is in that link that the attention terminates, and this psychological activity (reflection) accumulates, as in the end sought by it. Hence the preceding links, through which the operation of the mind runs lightly and without any stoppages, neither attract nor hold the reflex attention, and thus remain hidden from the person who performs them; so that if he should desire to take account of them, he must by the use of free will increase his attention, and make all the steps in the operation become, one after the other, its final terms. But the uneducated, and indeed the average run of men, go on like the traveller, who being wholly pre-occupied with his destination, pays no attention to the road over which he passes.

1685. This explains, in the first place, the secret reasonings which the human mind frequently goes through with-

out being aware of it. Thus illiterate people are found to arrive at the finest conclusions implying a long course of reasoning, which they have certainly made, and that most rapidly, but of which they can render no account either to themselves or to others, nay, are not in the least conscious that it has ever taken place in them. All their attention rests in the conclusion, which is the only thing they care for; and should you attempt to make them deliberately go over the steps of their mental process, they would think you were joking, or talking nonsense, and would laugh at you for troubling about such useless inquiries. It may be safely affirmed, that anyone who examines with philosophic attention the familiar and social discourse of the common people, will find that it does not by a very long way express all that actually passes through their mind while they are speaking. All that men say to one another in their everyday life consists of conclusions they have arrived at, and every word signifies a thought which it took many other thoughts to reach, though of these thoughts there is neither advertence nor recollection. How often, for example, will a *Vetturino*, in offering you his services the moment he sees you, address you off-hand as "Your Excellency" or "Monsignore," &c., although he does not know you at all! And yet these titles that come so readily to his lips have indubitably been the result of the following train of reasoning, formed by him with the utmost rapidity, and without his thinking of it:—

"By showing respect to people, and leading them to believe that we look upon them as something great, we render them kindly disposed to us;

"Being kindly disposed, they will easily consent to make use of our services;

"If this person engages my services, I shall gain my hire for the day, which is what I want;

"The title of 'Excellency' or 'Monsignore,' &c., being flattering to vanity, is a very likely means of making him believe that I think highly of him, and hence of rendering him kindly disposed to me;

"Therefore it is a very likely means for securing the remuneration I am anxious to obtain;

"Therefore I will use it in addressing him, though I do not know, nor care to know, who or what he is."

ARTICLE V.

Continuation.—Synthetic Reasoning.

1686. We must, nevertheless, observe that the reasoning whereby men in ordinary social life arrive rapidly at those conclusions which it is important for them to know and to communicate to their fellows, is not always carried on in so precise a manner as to keep all the mediate links or propositions distinct from each other. On the contrary, the mind finds short cuts and abbreviations of its own, just like the arithmetician who, in order to perform a certain operation, invents compendious rules which enable him, in a very ready way, to discover what he wants, whereas otherwise he would have to follow a long and tedious process. An instance of this may be seen in the case of rustics who are in the habit of reckoning on their fingers. This compendious mode of reasoning, which may be called *synthetic reasoning*, is constantly used by men in the ordinary affairs of life.

1687. We have in another work touched upon the *mediate rules*, which usually guide men's judgments.* Now these are just the rules that shorten and expedite the processes of reasoning. Having once formed these rules, men apply them as truths already discovered and established once for all, without troubling themselves any more about their demonstration, or turning back upon that series of reasonings which resulted in them: the function of faith replaces that of reasoning.

1688. A familiar illustration of this may be seen in the case of estimators of quantities in the matter of mulberry

* *Theodicy*, 14.

leaves.* At a glance, without the aid of measures or scales, these men will tell you exactly, or to within a mere fraction, how many bags or how many pounds-weight there are on a tree. How do they do it? Certainly, if they took merely the unit as their rule, they would not, by a long way, do the thing so quickly, even although there was, well impressed on their minds, the volume of leaves corresponding to a bag or a pound-weight. They do not, therefore, take the unit as their standard. They have other volumes marked on their minds, for example, the volumes severally corresponding to ten, to twenty, to fifty, to a hundred, &c., bags or pounds-weight. Hence they instantly apply to the tree before them that one of these volumes which is suitable for it, and so find the equation they want, and determine the quantity which is sought.

The same is the case with all professional experts who measure quantities by the eye. An architect will, at a glance, gauge the span of the frontage of a house, and not be perhaps a foot wide of the mark; a wine-gauger, in the same way, will tell you how many gallons of wine there are in a cask, and so on.

1689. Nevertheless it is certain that these experts would not know how to explain, either to themselves or to others, the secret of their peculiar power, or clearly to define the standards they employ. The reason is, because all these standards, imprinted on their imagination, are not what they are seeking. What they really seek, and therefore what their attention is directed to, and wishes to find and rest upon with reflex and conscious knowledge, is the end for which the said standards serve merely as means. The rest has no concern for them.

1690. At the same time we must observe that those *mediate standards*, which shorten the processes of reasoning, if they are not accepted upon the authority of others, must be drawn from experience, or from other processes of reasoning previously gone through.

* The Author here refers to the silk-worm, which feeds on the mulberry leaf, and, as everybody knows, is largely cultivated in Italy.—Tr.

ARTICLE VI.

Continuation. The Prudence of Sagacious Men proceeds by Synthetic Reasoning.

1691. The superior aptitude which some persons possess of forming a great number of these *mediate standards*, sure and ready for all needs, is exactly the reason why they excel others in what is called *sagacity*.

1692. Here we must observe how it very frequently happens that those men who seem to be capital reasoners, so far as theory is concerned, cannot always be equally depended upon for finding the best means to an end in practical things, and their advice, though reasoned out with a faultless logic, results in disappointment when brought to bear on action. Others, on the contrary, who cannot by a long way give so clear an account of their opinions, hit the mark so correctly, that they seem to have a kind of special sense, by which they see in an instant what is the best course to take under given circumstances.

The learned physician is not always the one who succeeds best in healing patients; the eloquent and subtle lawyer not unfrequently loses a case of which he felt sure, although he has applied to it all the resources of the most approved legal knowledge; and even the consummate theologian who has spent his life in expounding every branch of the moral science, will sometimes prove incompetent to prescribe a proper remedy for individual spiritual maladies. How many who seemed excellent theorists in financial matters have lost all their property by imprudent speculations, while others who, to judge from their language and demeanour, appeared to know very little indeed about such things, have amassed enormous wealth! But it is particularly in the concerns and affairs of life, and in the art of governing, that the exquisite sense of prudence of which I speak is sometimes exhibited in a marvellous way by persons from whom one would least expect it.

1693. The peculiarity of the thought of theoretic men

and splendid reasoners is that it proceeds by *analytic reasoning;* whereas the thought of prudent men and sagacious workers proceeds by *synthetic reasoning.*

1694. The *analytic reasoning* makes it a special point to omit nothing, to have a clear consciousness of every step that is made in its progress, to make sure that no part of the object which it undertakes to analyse is overlooked. But for concluding a transaction, for choosing a particular line of conduct, for hitting upon a suitable expedient in an emergency, many of those parts which it carefully considers and analyses are altogether useless, altogether irrelevant; because what is really wanted in such cases is, not to know of what parts the object before the mind is composed, but to know what is the best thing for one to do now and here. Hence the analytic reasoner often loses himself and wanders away into things that are foreign to the true question at issue, and this multiplicity of details which he revolves in his mind oppresses him, and renders more difficult his solution of the problem. Moreover, in this crowd of things which occupy his thoughts, he runs the risk of slipping over some of those circumstances which it would be necessary to take into account in order to come to a sound decision in the case. For all these reasons he is liable to arrive at a result either imperfect or insufficient for his need, and erring either by defect or by superfluity, notwithstanding that he is able to give a complete account of the whole series of his thoughts.

1695. The prudent man, on the contrary, goes to his goal by a much shorter way, namely, by synthetic reasoning. He does not confront part with part, but rather measures and compares the whole by the whole. The gist of his prudence lies in this, that he knows how to separate that *whole* upon which he has to pronounce from everything irrelevant, and then to apply to the whole thus separated and clearly distinguished that mediate standard which is precisely adapted to it.

Hence the practical prudence and sagacity here spoken

of consists of two parts: 1.° the ability to form many of those *mediate standards* which may be applied to the contingencies of life and of governments; 2.° the ability at a glance to seize on the knot of the matter in hand, and on the precise group of circumstances which affect it. In fact, when a man knows this, it is easy for him to find in the store-house, if we may so call it, of his experienced and sagacious mind that formula, that standard which instantly measures it, and suggests the correct judgment thereon and the prudent determination to be taken.

1696. This is why old men, in whom the analytic reasoning seems less vigorous, they having neglected it as less useful and necessary, and having gradually abbreviated it into synthetic rules, always seem, other things being equal, to be possessed of more prudence than the young. They have had more time to gather mediate rules from experience, and to train their attention to seize at once the *whole* of a question, eliminating those accessory or irrelevant circumstances that sometimes muddle it; and to this whole they can readily apply the proper standards.

1697. Thus it always remains true that in the minds of prudent and practical men a vast deal is done by secret and abbreviated reasoning of which they have no consciousness; hence it is usually said that their deliberations are guided by a *practical sense* rather than by the mind. Indeed, synthetic reasoning resembles the sense in the readiness and security with which it acts, and in the obscurity of the way it follows in getting at its final conclusions.

ARTICLE VII.

The Operations of the Rational Principle are sometimes Roused and Directed by an Occult Principle.

1698. From the law that the "Reflection falls upon the last link in the chain of the rational operation and not upon the preceding ones," there follows another consequence, viz., that "The principles which rouse and direct our

rational operations are hidden from ourselves, unless we by a free act render them terms of our attention." Indeed, it is clear that those principles, by their very nature, are not the last link in the chain of the rational operation, but the first.

1699. Hence man, in order to know himself, must by a free act turn back upon himself and investigate the secrets of his own heart. This is often a most difficult task, and well nigh impossible to do in a complete manner; hence the great value of the ancient motto: "Know thyself."

1700. The first principles of human action are: 1.° the animal instinct, as contained in the fundamental perception, and, 2.°, intuited universal being.

The animal instinct is the *moving principle*, ideal being is the *directive norm*.

Man, in his ordinary state, acts according to these principles without attending to them, or knowing how he is moved and directed. All he cares for is to reach the aim of his action.

But the *animal instinct* developes itself by putting on the habits of various passions, and thus, so to speak, multiplying itself.

The rational principle, in so far as it perceives this instinct, accompanies it throughout its whole development.

The same rational principle, however, by another act, refers everything to being, and finds what being itself, as the supreme norm of good and evil, disapproves, or permits, or approves, or commands in such operations. Hence the field for the exercise of free choice. The rational principle then either clings to what *being* prescribes, or blindly abandons itself to instinct, or conspires with it: hence the different vices.

1701. Nor is this all. The rational principle arranges good and evil into classes, thus forming for itself a number of "mediate standards," each of which serves to show or make known to it at once an entire class of good or of evil. It chooses whichever it likes from among these diverse classes, and, by so doing, it embraces some of

these mediate standards as directive of its action, rejecting the others.

1702. This choice from among the *mediate standards* in question, when once made, is the foundation of the *general desires* and *aversions* to which man yields. In truth, just as man has general rules in his mind, so he has general desires and aversions in his heart. By the former, he habitually and with his consent hankers after an entire class of good, or of what he takes to be good; by the latter, he habitually and with his consent rejects an entire class of evils, or of what he considers to be such. Thus he finds himself habitually determined in favour of certain things in general, and against certain other things in general; although these determinations may be changed at any moment by the intervention of his free will. Habits of this description, so long as they endure in a man, constitute in him so many secret principles of action, according to which, he, when placed in certain circumstances, promptly determines himself to action with what may almost be called a ready-made determination.*

1703. I say that these *principles* of human action, these general desires consented to,† remain hidden from man until he happens to make them the object of his investigations and, from first or middle links of the rational operation, turns them into last links, whereon his attention rests. Then, and not before, does he acquire consciousness of them.

1704. It must also be noted that, according to the quality of these habitual principles and standards which men secretly choose for the guidance of their actions, their *moral characters* differ, with that great diversity whose profound origin it is so difficult for the philosopher to investigate.

* *Treatise on the Moral Conscience*, nos. 76-103. *Anthropology*, Bk. III, nos. 745-763.

† There are also some which are not consented to, and which might more properly be called *inclinations*, congenital or acquired; and there are others which are consented to imperfectly, with different degrees and modes of consent, and with different tacit conditions.

ARTICLE VIII.

The Occult Element in Rational Operations gives Occasion to Error and Immorality.

1705. There are, then, in man two kinds of *cognitions*, the one hidden from himself, the other *open, luminous, reflex*. The former, ordinarily speaking, is of no interest to man; he does not care to gain consciousness of it; he uses it simply as a means, and does not stop in it.

This is a most important fact also for the reason that it gives us light for explaining how it is that man, although a being essentially rational, can fall into error, and although essentially moral, can fall into vice.* We see from this fact, that it depends upon man himself to attach interest and give heed to certain cognitions, and render them clear and luminous to himself, just as it depends upon him to leave certain other cognitions in the dark, in a condition inferior to that of those which he chooses for an end, and in which therefore his activity rests.

1706. If, then, we suppose, for example, that he who commits error is man in so far as living the reflex life, what wonder that he deceive himself, or that he act perversely, if those cognitions which could guarantee him against error, those rules which could shield him from vice, are not brought to the light of the reflex life, but left, as it were, buried in the silent night of the direct life? What wonder that the rational principle errs and transgresses, if for it there exists no other cognition than that which occasions error and favours vice?

ARTICLE IX.

In the human mind there takes place a Secret, Spontaneous Action whereby, without man's knowledge, or any free co-operation on his part, the various cognitions are Gradually Arranged in proper order.

1707. Here I must mention a fact which I have often experienced in myself, and which I believe is no uncommon

* See *Theodicy*, nos. 396-410.

thing with those who are in the habit of observing what takes place within them.

I allude to that kind of slow work which the mind does by itself, whereby the various cognitions deposited in the store-house of the memory are, without our being aware of it, gradually arranged in due order, so that at last each is found to have settled down, so to speak, in its own proper place. How often has it happened to persons addicted to study, and particularly to those devoted to philosophical speculations, that, after meditating a great deal upon some subject, they had to stop from mere fatigue, still unsatisfied with the result! And then, behold! After a few days, without having given any further deliberate attention to that subject, the mind is found, quietly and of its own accord, to have set everything right, and the ideas appear so well ordered, that, all difficulty having vanished, the solution of the problem proposed offers itself quite spontaneously and with vivid clearness.

It is true that this may also, in part, have to be attributed to the circumstance that, during conscious meditation, the imagination works, gets wearied, and muddles the purity of the reasoning by the intermixture of importunate and unstable phantasms: hence, when quiet supervenes, the work of the reason stands out by its pure self alone.

1708. To the same cause must likewise be attributed the fact, that the memory will often fail to apprehend something that is studied at night, and yet find it fresh in the mind next morning. The imagination, calmed and reinvigorated by sleep, has faithfully rendered the impressions stamped on it the previous evening, when from fatigue or confusion it was not in a fit state to serve reminiscence.

1709. Speaking generally, it is a good rule recommended by prudent men to let deliberations remain and ripen for some time in the mind; because in this way they improve without being expressly thought about. Hence a resolution taken, but kept in abeyance in this manner, will, after a certain time, turn out better and be more likely to

succeed, not only because it is examined anew, but because it gains consistency of itself, by an unconscious secret operation of the direct intellective life.

1710. However, this kind of action will not go on unless it has a secret spring of movement in the habitual earnest desire to find the truth sought for, whether in the case of the student who has proposed to himself the solution of some scientific question, or in that of the prudent man who takes habitually to heart the matter upon which he is deliberating.

ARTICLE X.

Continuation. Another kind of Unconscious mental action.

1711. A second mental action, to some extent identical with the first, takes place also without reflection or consciousness.

There are certain concepts, certain thoughts which, so to speak, show an affinity for each other, attract each other, associate themselves variously with each other.*

Now, this affinity and association are unconsciously brought about in the mind in the following ways.

1712. In the first place, human thought finds a bond which naturally reduces it to unity in the *idea of being*, the supreme principle of all cognitions. This supereminent being is the secret guide of the human mind, which being always turned to it, sees in it, by a kind of habitual action, many agreements between the things known, without attending to them, or attending only slightly. This operation, therefore, is a continual return of thought from the multiplicity of being to its unity.

1713. Moreover, we must remember that the various thoughts of the human mind produce in man, who is essentially feeling, a sensible effect. Now it so happens that thoughts which are in themselves different from one another sometimes produce a sensible effect, a special feeling of the same nature; and since feelings readily become

* See the *Preface* to the first volume of the *Opuscoli Filosofici*, Milan, 1826.

instinctive principles of action, it comes to pass that these identical or similar feelings dispose man likewise to those kinds of thoughts which are the causes of them.

1714. This process is further aided by the fact of there being already formed in man those *general affections and desires* which we described above, and which are like so many musical strings that respond with the same tone whether they be touched by the hand, or a quill, or a pin of steel, or anything else. Under the guidance, therefore, of these affections excited by different concepts or thoughts, the attention of the mind, and the thinking activity, direct themselves spontaneously, and often operate without the knowledge of the person, who does not at all reflect upon this fact that takes place within him.

ARTICLE XI.

How it is that what lies hidden in the soul, sometimes, on an occasion arising, Suddenly Reveals itself with great vehemence and clearness.

1715. The *general affections* lodged in the human soul, then, employ in their behalf and direct thoughts by associating them in groups, and even recalling them after they have long passed away. Hence a thought or a determination will occur to a man to-day, which is closely allied with one of a year ago, and of which he had since lost all recollection. That thought, though long forgotten, is the cause of the present one, and why? Because it left the soul affected and disposed in such a manner as to be naturally prone to it, and therefore ready to form it as soon as the least occasion should offer.

1716. But the most remarkable thing is that these *habitual and general affections* dependent upon the *mediate standards* of which we have spoken, sometimes grow of themselves, like germs that stir underground, to a high degree of intensity, and the persuasion which forms their foundation becomes gradually strengthened. At the same time, they remain concealed in the soul unless reflective

attention happen to be excited by some stimulus to turn to them; in which case they sometimes burst forth in a luminous and even in a noisy way. This is perhaps why heroic characters sometimes suddenly reveal themselves when placed in circumstances that accord with their internal and hitherto unknown disposition;* and it also accounts for those political revolutions which are occasionally seen to break forth with the violence of a tempest.

1717. In the same way we can explain many other facts of human society. Why, for example, does a poet, or a writer cause a great sensation in his day, but because he is the faithful and ingenious interpreter of those feelings and those great persuasions which everybody had in himself without knowing of their existence, without being able to find the expression for them, because he had never reflected on them? Hence, when the man appears who can eloquently lead the attention and reflection of the public to those secret but powerful persuasions—who can invent formulas adapted to give them a reflex and luminous existence, to make them look noble and beautiful—then everybody rejoices and applauds as if a treasure had been discovered, a treasure which all had unconsciously possessed; and they are full of gratitude and admiration for the genius who first put into words what they all would have said had they only known how.

1718. Again, take the case of popular riots. Whence so sudden an outburst of fury in a multitude that but yesterday seemed calm and peaceable? It was calm because it was unconscious of the affections brooding within it; because it lived a life of reflection, and the ferment of passion lurking in the depths of the direct life had not yet passed on into the reflex life. The calmness was in the men acting as reflex principles; because, as direct principles—the principles within which the fire was burning—they were not the men who now manifest themselves out-

* On the dominion which a thought may acquire over those men who earn the title of heroes by the boldness of their actions, see *Anthropology*, Bk. III, nos. 723, 724.

wardly, but the men who were being silently prepared for the outburst. It is true that in riots there is another principle at work, which goes a long way to change men's natures; it is the feeling that each one has of the strength of all, the conviction of having with him the whole power of the mass of which he forms part, the vigour which springs from unanimity in the persuasion of an assembled multitude. All combined produces enthusiasm, pride, and a lawless excitement hurrying on the abuse of brute force. But these causes would not be sufficient if there were not in that multitude certain uniform, internal, hidden dispositions matured long beforehand, certain general opinions and affections harmonising in all and conspiring to produce that outburst, which by its suddenness and grandeur overpowers and bewilders reason, and thus readily changes into madness and cruel fury. If this circumstance be wanting, no riot takes place, but the populace disperses in order and in peace.*

1719. The same must be said of national revolutions. Their success depends entirely on the secret disposition of the minds and feelings of the masses. If this exists, at the first hoisting of a flag the thought of all is certain to reveal itself. And as no revolution succeeds without such secret disposition accumulated in men's bosoms, so in all those revolutions which have come to nothing in spite of the most heroic valour and most magnanimous sacrifices on the part of a few individuals, the failure was due solely to the fact that the people's reflection, when excited, did not find in their direct life a store of available forces sufficient to achieve success.

ARTICLE XII.

Why man does not stop at the Image, but goes straight on to the Being represented by it.

1720. It is, then, a psychological law, that attention rests only on the last link of the rational operation, that reflection

* James Russell Lowell has expressed this thought admirably in his noble poem: *An Incident in a Railway Car.* —Tr.

falls only where attention rests (and indeed not always even there), and consciousness is acquired only of those things upon which reflection falls. Now this is a most precious law also for the reason that it enables us to explain innumerable other mysterious phenomena of the human spirit. We will give an important example, connected in part with the famous controversy of the *cultus* of images.

It is a fact called in question by no good observer, that when a person makes use of an image, his thought does not stop short at the image, but goes on to what the image represents.

The image only serves as an aid to the fancy and a means of direction to thought, so that it may go straight to the absent object and fix itself on it, in virtue of the cosmological law of intellective movement, which says: "The real, as term of the rational principle, is what rouses the attention and leads it to acts of subjective cognition" (1509).

1721. In truth, who would ever say that the maiden who feels such pleasure in looking at the likeness of the beloved one to whom she is betrothed, and imprints a thousand kisses on it, takes the likeness itself for the object of her affections, and not rather that she intends those affectionate acts for the person whom the likeness represents? Who would say that she is in love with that piece of inanimate cardboard or canvas, with that cold marble or that bronze which recalls to her the dear lineaments?

If this were so, if the likeness were the object of her affections, its possession would be quite enough for her; the absence of her affianced would cause her no annoyance; she would not be waiting for him with that painful, restless anxiety which makes her count the moments (oh! how long) of her sad separation; she would not hurry him with so many sighs and tears to return from distant lands; her heart would find its contentment in the likeness, and wish for nothing more.

Again, if the likeness were the object of her love, this would have as many objects as there were likenesses of the

beloved person. But if you should question her on this point, you would see how indignant she is at your interrogation, and how strong in her protestations that she has only one love, and would think herself unfaithful were she to divide it among several. Nevertheless you will admit that she gives vent to her feelings sometimes over one likeness, sometimes over another. Why then, I ask, does the protest that she has but one lover, and that she loves him all the more because he is one? Is it not clear as sunlight that she does not stop at the images, but flies direct to the true object represented by them all?

Moreover, it may be that the different likenesses do not all resemble her beloved to the same degree; one may represent only his face, while another represents his entire figure, &c. And yet each of them rouses in her heart exactly the same affectionate acts. Nay, these are roused in her not only by the presence of a likeness, but also by a letter, which she kisses just as fondly and presses to her bosom—by any little present from, or any token of him, in short, by anything which in any way represents to her the dear one with whom she ardently desires to be united. And even if the likeness should happen to be imperfectly executed, or to exhibit some unattractive feature, she will not much care, provided only it serves to keep her in mind of the object in which she hopes to find her future happiness. All these things show to evidence that it would be mere folly to suppose that the thought of the loving maiden terminates and rests in the likeness or the sign. No, indeed! Its term lies wholly beyond that; it lies in the last link of the rational operation, the link upon which her attention and reflection dwell, whereas the likeness or sign is only an intermediate link over which her thought rapidly passes without stopping.

1722. Still we must here make an observation. The rational principle, in its different operations, merely developes, specialises and actuates the *fundamental perception*. This, and consequently all acquired perceptions, has two terms, one corporeal-sensible, the other intellec-

tive; and out of these the rational principle, by uniting animality and intellect, makes a single term, the term of the perception. Hence, when the object is perceived, not in itself, but only by means of an image or vicarious sign, then, in virtue of the same law, the rational principle forms the term of perception out of (1) the vicarious sensible sign, which takes the place of the sensible action of the being, and (2) the intellective element; and thus it individuates in a certain way the sensible sign with the being itself which is in the intellective concept. It follows that, although the intellective object is the true and real object, yet the *sign* is so closely linked to it that it seems to form one thing therewith. Hence the understanding sees and contemplates the being in the sign in a manner precisely similar to that in which it sees a being in sensations. The sensations are not the being thought by the understanding, yet in the act of perception they are what clothes that being and determines it; the same thing happens when a man or any other being is perceived by means of a sign or image.

1723. Those who properly understand this theory cannot be surprised to find that the nations anterior to Christ, or not illumined by His light—in whom the force of intellect was weak, but that of the imagination and of sensuousness exceedingly strong, while their intellective development did not reach much beyond perception—by uniting and confounding the sign with the thing signified, fell into idolatry. Not indeed that they paid adoration to mere blocks of stone or to the likenesses of animals as such. What they really intended to worship were certain higher and divine powers which they individually conjoined with these things; although in course of time they went even so far as to transform the beings which compose material nature, as also the works of human art, into so many divinities, in other words, to deify the creature. Of a certainty, if in their minds they had not added to the statues or other material beings something divine, they would never have adored them. Ancient idolatry, therefore, did not consist

in worshipping mere signs or images (this would be impossible to man for the reason stated above, that he cannot rest with his attention on what is merely an intermediate link of his rational operation, as signs and images are); but it consisted in attributing, by a trick of the imagination, the nature of *object* to things that were only signs or images; in identifying, through an error of thought, the material forms with the divine object, and thus worshipping those forms in the belief that they were this object itself or the visible part of it. In the case of the ancient peoples this error was facilitated and completed by their seeing that the material world teemed everywhere with forces. As these forces could not consist in matter itself, because matter was inert; so they naturally supposed them to be invisible beings endowed with transcendant powers. This mode of reasoning was correct enough, in fact it was the very same that led ourselves to infer the necessity of a *corporeal principle*, which principle, however, those ancients absurdly made a God of. Hence the worship of Genii, and of Angels, of whom the Scripture itself says: *Omnes dii gentium dæmonia.* We cannot, therefore, agree with the Abbé De la Mennais, who maintains that the Gentiles could not be considered as true idolators, because their worship referred to the divine virtue and power and did not terminate in their idols themselves.

1724. Again, a distinction must be made between such signs as are intended to direct the attention to an absent, but sensible, object which has previously fallen under one's perception, as in the case of the affianced maiden who dotingly contemplates her future spouse in the likeness she holds before her eyes, and such images or signs as are intended to direct the attention to an object which is invisible and spiritual, for example, the Divinity. In the first case there is no reason to confound the sign with the thing signified; because as this thing also is sensible and directly known, so one can imagine it as it is in itself, and clearly see how different it is from its sign. And even if one had not had perception of the identical thing, but only of other

individuals of the same species, the same would be true. Thus no one confounds the portrait of a man with the man himself, even supposing that he has never seen him.

But in the case of invisible beings, when a sensible sign leads our thought to them, we naturally desire to grasp these beings themselves, and, in order to do this, we should require to find in them something sensible, on account of the law of intellective movement laid down above, that "The real, as term of the rational principle, is what rouses and holds its attention." As, therefore, man is unable (or able only with extreme difficulty and after he has acquired the free use of his thinking powers) to fix his attention upon the invisible, without some sensible clothing; so, whilst his mind is yet in an undeveloped state, he attributes to that invisible the form which he finds in the sign, and thus the image seen in the idol readily becomes the form attributed to the God who is worshipped. But those nations which attributed human forms to the images of their Gods, fell at once into *Idolatry* and *Anthropomorphism.*

1725. If we consider that among ancient peoples the understanding acted spontaneously, and free thought was little or not at all developed, we shall readily understand why God forbade the Jews to represent the Divinity by pictures or statues. In the child-like state of their minds, it would have been most easy for them, not to say inevitable, to slip into the two errors, whose natural origin we have indicated, namely, Idolatry and Anthropomorphism. On the other hand, that free thought can avoid such errors, or, which is the same thing, recognise them as errors, is shown by the fact that in the memorable sixth century before the Christian era, when the Italian mind began to philosophize, one of the first truths that forced itself on it was the falsity of the human forms and human modes of action attributed by the vulgar to the Gods. Such was the thought of Pythagoras and Xenophanes,*

* Diogenes Laërtius (*Proem*) adds Xenophanes to the school of Pythagoras.

the latter of whom wrote these verses which have come down to us:

> Si manus bovi, manus apta leoni,
> Pingeret, atque hominum tractare assuesceret artes,
> Illa bovi similes superos, similesque leoni
> Fingeret; acer equus specie formaret equina.
> Quisque suo proprium vestiret corpore Numen;

and these others:

> Maximus idem hominum ac superûm Deus unicus ille est,
> Quem mortalis homo non mente aut corpore reddat.*

* Ἀλλ εἴτοι χεῖρας γ' εἶχον βόες, ἠὲ λέοντες,
Ἢ γράψαι χείρεσσι, καὶ ἔργα τελεῖν ἅπερ ἄνδρες.
Ἵπποι μὲν θ' ἵπποισι, βόες δέ τε βουσὶν ὁμοῖοι,
Καί κε θεῶν ἰδέας ἔγραφον, καὶ σώματ' ἐποίουν
Τοιαῦθ', οἷόν περ καὶ αὐτοὶ δέμας εἶχον ὁμοῖον——

Εἷς Θεὸς ἔν τε θεοῖσι καὶ ἀνθρώποισι μέγιστος.
Οὔ τι δέμας θνητοῖσιν ομοίϊος ουδε νόημα.

See Clement of Alexandria, *Stromat.* v, Theodoret, *Græc. affect.*, Serm. iii, and Eusebius, *Præp. Evang.*, xiv, 16. Cicero repeats the last of these two thoughts of Xenophanes thus: *An putas, ullam esse terra marique belluam, quæ non sui generis bellua maxime delectetur?—Quid igitur mirum, si hoc eodem modo homini natura præscripsit, ut nihil pulchrius quam hominem putaret, eam esse caussam cur Deos hominum similes putaremus* (this was true of the Greeks and Romans, but not of other nations who figured their gods in the images of beasts, or of inanimate things). *Quid censes, si ratio esset bestiis, non suo quasque generi plurimum tributuras fuisse? De Nat. Deor.* i, 27. Simon Karsten very acutely observes that Xenophanes says, "if the beasts had hands," whereas Cicero says, "if the beasts had reason," a change which indicates a different age in philosophy, since at the time of Xenophanes sufficient attention had not yet been given by philosophers to the power of reason, whereby man excels the brutes (*Philos. Græc. Vet. Reliquiæ*, vol. i, p. i, p. 43. Amsterdam, 1830). [Karsten also suggests an improved reading of the first five lines quoted above. *Ibid.*, p. 41.—Tr.]

CHAPTER XXXV.

PSYCHOLOGICAL LAWS CORRESPONDING TO THE COSMOLOGICAL LAWS THAT DIRECT THE PRACTICAL REASON. —PSYCHOLOGICAL LAW OF HARMONY.

1726. Divine Wisdom has placed order in the world. But this order is not in and through the world apart from spirit. On the contrary, it is by an order existing in and through spirit that the external world receives that substantial completion that turns it from non-being into being. Order, therefore, in the world apart from spirit is not yet order, but is merely a rudiment of the order that is afterwards found in the world as existent in spirit. Hence the cosmological law of harmony must be followed by the psychological law which completes it: they are two parts of the same law, two real relations in which the same object is considered.*

It was on account of this connection which belongs to the *synthesism* of nature that, in speaking of the cosmological law of harmony, we were obliged to deal in part with the question: "What does the soul contribute on its part in the production of the world's harmony?" But in what we then said we limited ourselves to the sensitive soul, inasmuch as this, viewed in relation to the rational principle, belongs to the world, that is, to the term of the

* This truth was long ago known by the acutest minds. My Italy! why dost thou not take to being the disciple of the great intellects, instead of for ever wasting thy time in the most frivolous and superficial reading? And yet thou dreamest of becoming once more the queen of nations!—Whoever desires to see how well the great thinkers saw that all harmony perishes if we take from the world either the sensitive or the intellective spirit, has only to open John Kepler's work entitled *Harmonices Mundi* (Linz, 1619) and read Book IV.

rational principle; for the animal feeling, as well as the felt, is truly a natural term of the human intelligence.

We must now, therefore, continue and see what the soul, in so far as rational, posits in the constitution of harmony; and this will in some way complete the question which we proposed to ourselves. At the same time, we shall not be able to speak of rational harmony without introducing other things which are mixed up with it and belong to the animal harmony — a subject ever new and inexhaustibly rich in matter for thought.

ARTICLE I.

Law of Regularity.

1727. It is a fact that every thing tends to act regularly, and that the rational principle takes delight in regularity. Whence comes this law, this tendency?

Regularity may be considered in two ways: in the action performed (subjective regularity), and in the object contemplated by the mind (objective regularity).

1728. What is the origin of subjective regularity, that is, of the tendency to act with regularity and feeling pleasure therein? This tendency and pleasure are common, both to the sensitive and the rational principle; in fact they form a most general law of all the agents that pass from power to act, in other words, are subjects of transient acts. What is, then, their origin? Whence do they proceed?

1729. The pleasure which every agent takes in the regularity of its own actions is due to three concurrent causes, viz.:

1.° The natural order with which every agent is constituted;

2.° The law which determines the mode of operating proper to spontaneity;

3.° The unity of the agent.

Let us consider each of these causes separately.

SECTION I.

Regularity of Action arising from the Natural Order with which the Agent is constituted.

1730. Every simple being has an intrinsic order without which it would not be a being. Moreover, every agent in nature composed of several elements is constructed and organised by the wisdom of the Creator with admirable order. Now, since order is inherent in the nature of the agent, it must also be found in its powers and acts. The actions, therefore, of every agent must naturally be characterised by order.

1731. It is from this principle that the concept of the *natural regularity of the action* of beings should be drawn; in other words, when the question is asked: "In what does the regularity of the action of beings consist?" one must not reply by imposing upon them an arbitrary regularity, but must deduce the regularity proper to them from the order with which they are constituted according to their nature. Hence, for example, that apparent regularity which we see in gardens laid out in what is called "French style," and is the work of the gardener's despotic hand, which by dint of merciless loppings reduces the trees, some to the form of pyramids, others to those of columns, of vases, of statues, &c., is not regularity, but rather what I would call a butchery and a barbaric destruction of their natural and true regularity. And what I say of trees may equally well be said of the education of men; because men too have their *natural regularity*, which ought to be protected and developed by a wise education and a good government. To impose on them a capricious regularity would be the same as to force on them a nature different from that of human beings.

1732. The reason is that *natural regularity* is not of the same form for all beings. It varies in each according as the nature of each varies.

SECTION II.

Regularity of action arising from the Mode of Operating proper to Spontaneity.

1733. The spontaneity belonging to the action of beings has this law, that when it receives an impulse, it seconds and continues the movement in the way marked out by that impulse.* This constancy of direction is naturally a source of *regularity*, inasmuch as it secures the movements against deviating either to right or left. Hence it is that if, during a spontaneous movement started in one direction, another impulse happens to be applied, compelling the spontaneity to interrupt its course and turn it in another direction, the agent feels discomfort, because it is impeded from completing that action in which its spontaneity was already engaged. On the contrary, it feels pleasure when its spontaneous actions are not disturbed and broken in the middle. There is, therefore, a pleasure in that regularity of movement which consists in its continuation till it reaches its natural goal.

1734. The reason why spontaneity does not by itself change its course lay, we said, in this, that the *law of inertia* is mixed up with it; and inertia consists in the tendency to repose, which is the contrary of exertion, to rest, which is the contrary of motion. In fact, no agent moves but to arrive at a *state* in which it can quietly rest. For the same reason, it never issues from its state of repose unless made to do so by some foreign impulse which sets it in motion; but when it has been, so to speak, forced into the change, it goes on with it in order to find at last the more congenial state of quiet or, at least, a condition of uniform or immanent activity. Hence spontaneity does not begin movement, but only continues it; and this law applies not to animality alone, but to all rational agents also, except in so far as their free will is concerned.

1735. The same law is also the origin of *habit*, or that

* *Anthropology*, Bk. IV, 439-483.

peculiar disposition in virtue of which a sensitive or rational agent finds a greater facility in repeating actions which it has previously performed, than in performing new ones. The actions previously performed have not altogether ceased in it; they have left some trace which distinctly marks out the path for the action to be repeated. Hence the instinct, which always inclines to take the easiest way, finding one ready to hand, does not put itself to the trouble of opening up or groping for a new one. The truth is that the entire action, which to all appearance had ceased, remains slightly actuated in the acting principle; there remains an outline of it which has the virtuality of the action itself, and at every new impulse changes into act. Hence acting by habit is like continuing a previous action which has ceased only in part.

Thus we have *purely spontaneous regularity*, and *regularity of habit.*

SECTION III.

Regularity of Action arising from the Unity of the Agent.

1736. But the explanation of regularity cannot be complete unless one has recourse to the unity of the acting subject. It is upon this unity that our closest attention must be concentrated. We have already seen that by means of it a perfectly satisfactory account can be given of those facts of the spirit which Aristotle ascribed to a pretended common sensory. Since animality consists of an extended and multiple term, and a simple principle, it is plain that the extended and multiple exists in this simple principle and derives its unity therefrom. Now, as the principle is equally present to all the parts assignable in its continuous term, so it is able to operate according to the laws of its own spontaneity in all or in many of them at the same time, and to produce simultaneous movements in them. These movements must, therefore, receive a twofold order; one from the organisation of the parts of the extended term, the other from the unity of the principle

which moves them, and from the laws of its spontaneity, these laws being, on account of its simplicity, exactly the same in all those parts of the continuous which it embraces in its action. Inasmuch, therefore, as the parts of the animal body are regularly disposed, and the principle which moves them is one, their movements must necessarily proceed with regularity.

SECTION IV.

Continuation.—Regularity arising from the laws of the Imagination.

1737. But this is not all. The regularity of which we are speaking is aided also by the law of the imagination, a law wonderfully ordered by the Creator. What is this law? It may be described as follows: "In the brain (the sensory of imagination) the outer world is marked out as it were in miniature traces, just as we see it marked out in the optic sensory by the impressions of light. These tiny world-traces, distributed over the surface of the brain, when considered subjectively, are the images; and between them and the human body there is this peculiar correspondence, that they become principles and seats of suitable movements in such a manner that the sensitive principle, in order to produce in the members of the body the movements it longs for, has merely to act on those minute extremities of the brain where the traces are. The movements in question will naturally follow."

It will, of course, be seen that, speaking properly, the position of the sensitive principle in this fact is not the same as that of the pianist, who produces musical notes simply by touching the keys of his instrument, or of the steersman of a ship, who by slight turnings of the wheel moves and governs at will the ponderous rudder of the vessel: no, these similes, though approximative in a certain way, are not exact. The movements which the pianist causes directly in the keys, and that which the steersman causes by turning the wheel, are communicated to the

chords of the instrument and to the rudder by an action wholly mechanical; whereas the sensitive principle, from the image present to it, receives nothing except an excitement to and a direction in the doing of that act which directly and immediately moves the members of the body; this being completely impressionable to the needs of its longings. For example, the hungry animal feels that unrest which urges movement toward the satisfaction of the appetite. But if there return to its imagination the place where it has previously satisfied its hunger, and the food it found there, then the complex image of its state in that place, of the satisfaction enjoyed in it, and of the way leading thereto—an image, be it remembered, which is an association of several images fused into one, into a single feeling—will be sufficient, both, to excite in it that amount of motor force, and to determine that direction which will rapidly carry it to the real spot corresponding to the imaginary one by reason of the correspondence of the images with the real entities that caused the sensations. It is merely a matter of the animal sensibility confronting the sensation it has had with the image of the same—two things between which, in point of fact, there is a proportion. I say there is a proportion, because, while, on the one hand, space or unlimited extension, as we have explained, is present and existing in the fundamental animal feeling, on the other, the limits which give a figure to that space are marked alike by the external sensation and by the image—two modes of one and the same feeling. The movements, therefore, which guide the animal's legs to carry it to the spot where it has previously satisfied its hunger, are active feelings whereby it tries to complete by *sensation* the satisfaction which it has in *image*. There is a transition from the (non-satisfying) state of image to the (satisfying) state of sensation; and the movements caused in the legs are a series of active feelings that connect these two states, that is to say, feelings which set out from the state of imagined satisfaction in order to reach a state of satisfaction felt and fully

enjoyed. And all this series of active feelings and consequent movements is itself traced out in the cerebral sensory, and reproduced in accordance with these traces. In the opposite case, that is, if these feelings have not been previously experienced, they may spring up as so many tentative ways whereby the disagreeable state of unrest seeks to unfold itself, and in flying from which state the animal, as it were by a kind of groping, manages to get rid of it, and to find the satisfaction longed for.*

1738. Here it should be observed, that what we have said of the brain, viz., that it is only the organ of imagination, and not of thought, applies also to every other sensory that is endowed with retentive power; because animal feelings do not consist wholly in images, but are many and very various.† In order, however, to simplify our discussion, we will speak only of those movements which are begun and directed by images.

1739. From the description, then, which we have given of the manner in which the animal moves so as to reach the spot where it formerly satisfied the cravings of its hunger, we may gather:

1.° That the *imagination*, or the preservation in the retentive faculty, of the *satisfying state* which the animal wants, is the principle of its movement;

2.° That this movement is directed to seeking the actual attainment of the *imagined satisfying state*, in other words, to passing from the state of simply *imagined satisfaction* to that of *felt* and *enjoyed satisfaction;*

3.° That these two states are separated by a series, more or less long, of other states through which the animal must pass in order to reach what it longs for, that is, the state of *felt satisfaction;*

4.° That, on being moved to make this transition, it tries to go through that series of states which ultimately leads it from the *imagined* to the *felt satisfaction;*

5.° That the intermediate states are those successive ones in which the animal finds itself during the movements

* *Anthropology*, Bk. II, 439-483. † *Ibid.*, Bk. II, 45-498.

it performs in order to attain satisfaction, for example, those by which it proceeds to the place where the food is;

6.° That, if the series of intermediate states has not been previously experienced by it, and therefore is not marked in its cerebral sensory, the animal is obliged to grope for it, like the wolf, which after having vainly wandered about in search of prey, is at last set on the right track by the scent wafted to its nostrils from yon sheep-fold;

7.° That, inasmuch as the series of these states is arranged in an order of succession, it comes to pass that the succession itself, though seemingly incapable of being marked in the brain as succession, remains nevertheless in the virtuality of the sensitive principle. Owing to its unity and identity, this principle is present to the multiplicity of the successive series, just as it is present to the multiplicity of the parts assignable in the extended. Furthermore, in virtue of the law of habit, it is able to retrace all the steps of the succession, and that too with a single principal act, wherein its simple activity extends all at once to the entire succession. In this, we may fairly suppose, it is assisted also by the docility of the organism, in which certain movements may be so nicely adjusted with reference to others, that they must almost necessarily follow them. Such must undoubtedly be the case with those persons who dream that they are running or flying.

We must, then, hold fast to the distinction between the three parts in the chain of operations through which the animal instinct proceeds, namely: 1.° The state from which the animal sets out (a state of anticipated, expected, *imagined satisfaction*); 2.° The state which it reaches by its movements and efforts (a state of complete, exhaustive *felt satisfaction*); 3.° The intermediate states, through which the animal passes in order to transport itself from the first state to the second (states of disquiet, effort, movement).

1740. Now the intermediate states through which the animal passes in order to complete the satisfaction begun in the fantasy or, generally, in the internal sense, may be

more or less numerous according as the state from which it sets out is more or less removed from the state which it is endeavouring to reach. Let us suppose a case in which there were none of these intermediate states. Then the state of complete or increased satisfaction would follow immediately upon the state of imagined satisfaction. And this is exactly what happens when the animal tends to increase a sensible satisfaction or pleasure by merely actuating its sensories in a higher degree, in order to feel with greater keenness and delight what it has begun to feel slightly.

With respect to this immediate transition from the state of inchoate to that of complete satisfaction, we must again extend what we have said of the *imagination* to all kinds of internal *feelings* generally. The imagination is only one mode of feeling, it is feeling in the brain, where principally the optic sensations, which have the form of images, are reproduced; but there are many other sensories besides, and every animal feeling, to whatever sensory it may belong, is a source of instinct. Hence the animal, whenever it feels a pleasurable, but only inchoate sensation, exerts itself to complete the same as nearly as it can, that is, to make it increase to that degree of intensity which could not be exceeded without necessitating a labour too great for the force of its conation.

1741. Here appears again the *formative virtue*, whereby living elements combine into seeds and into animals; seeds likewise evolve into animals; and animals grow, develope, attain perfection, decay and die. Now, since in every aggregate put together by the formative virtue there is a single principle of action, as well as an ordered union of feelings arranged in an extended term, it will be readily understood that the formative virtue may be looked at from two points of view: (1) from that of the single principle in which its efficiency lies; (2) from that of the term, felt by means of sensations harmoniously connected, and therefore containing the *norm* that directs the principle in its action. This term, considered as a sensuous instinct, may fittingly

be represented as being, so to speak, a living self-acting *stamp;* and on this account we reserve for it the denomination of *plastic force.*

1742. Whether in the more perfect animals, which are furnished with brains, this organ of the imagination contributes to impart a certain conformation, certain accidents, certain dispositions, to the fœtus, is a question which we do not possess knowledge enough to answer. But we think we may say this much: 1.° that in explaining the conformation and disposition of the fœtus account must be taken, not of the imagination of the mother taken by itself, but of the whole maternal feeling, as also of the feeling annexed to the elements of which the fœtus is composed, and to the fœtus itself after its composition; 2.° that since the imagination forms part of the maternal feeling, it is not unlikely that it has a certain, more or less indirect, influence on the fœtus; for it certainly has an influence on the whole animal being of the mother, which remains modified by the passions that are roused and fostered by the imagination.*

1743. But in order to complete this discussion we must still inquire by what principle the imagination is moved. It must not be forgotten that every image is composed of many parts, of forms shaped, some in rectilineal outlines and some in curved, of colours in various shades, and even of different movements which the image performs as if it were a running steed. Now these parts, shades and movements observe a certain order; they are not thrown together at random. Who, then, is the wonderful painter who has been able to arouse in the interior sensory so many minute movements, so nicely proportioned to each other as to render the image perfect, without one movement too many

* Hence we do not think it possible to maintain the theory of the ancient physicians, that *Phantasia dirigit conformatricem per species exemplariter* (See Fieno, *De Viribus Imaginationis*, Quæst. xv). A proof that the formative virtue does not act merely through species supplied by the fantasy, and, indeed, that such species can have only a very partial influence in this matter, is that the action of the formative virtue is very far removed from consciousness; whereas, if it took place by means of those species, there would be no difficulty in directing one's reflection to, and thus having some consciousness of it.

or too few, which would have ruined everything? If we consider carefully, we shall find here a stupendous work of nature; for the interior sensory is, by itself, capable of rendering, not only images taken in their entirety, but also their parts, and even colours that do not represent anything. What, then, is the single principle which determines it to such a complex of sensations as renders the image thus entire and exquisitely beautiful, and that too, not by composing it bit by bit, not by adding hue to hue, and, as it were, touch to touch, as the painter does, but positing it all and finally in act, at one sweep and in a single instant? or as nature itself does when it paints the flowers and the insects, whose harmonious colours are all put on at once, so that the beautiful picture appears ready formed and complete, without a single leaf or wing being neglected in the process, or less elaborately painted than the one pairing with it?

To explain this fact of perfect order and regularity which appears complete in the image from the very first, we have recourse to the three following principles:—

1.° The *simplicity* of the sensitive principle, which is the operator or efficient cause (although other, exciting, causes may concur with it), and, owing to this its property, is simultaneously present to all the original sensation, which the image reproduces;

2.° The *force of habit*, which has this effect, that an act once performed is easier to do again; because the rudiments of that act remain in the soul, and hence, although the act itself—in our case, the sensation experienced—has ceased, the soul tends to determine itself to it;

3.° But, considering that the images which occur in dreams, or even in waking hours, are not perfect reproductions of the sensations one has had, it becomes necessary to have recourse to a third principle, which is that "the animal invariably does what is easiest and most pleasurable to it," that is to say, taking into account all the conditions in which its sensitive and instinctive principle happens to find itself.

Now what moves the sensitive principle, one and simple, to produce images in itself, is a multitude of internal stimuli, principally the humours of the human body, which by their movements, regular or irregular, excite to its acts the internal sensory of imagination, and with it, of course, the single principle from which its vital action springs. This principle, therefore, allows itself to be roused to action by the concurrence of that multitude of stimuli, and its spontaneity determines itself to that kind of complex action which is easiest and most pleasurable. It never resists the excitation of any stimulus, unless prompted to do so by a greater stimulus. At the same time, its oneness and simplicity, aided also by habit, render it a matter of necessity and spontaneity for it to put order among even the smallest images, or parts of images, which the stimuli provoke in its sensory. The reason of this is, (1) because it could not with a single act produce them all together, except that act were such as to synthesize and order them in unity, while on the other hand it would be a source of great annoyance to it to leave them scattered at random, or to suppress them by resisting the stimuli which excite them; (2) because their harmonious union gives it more pleasure, more delight. But it finds this harmonious union at once, because such union is determined by its nature itself, that is, by *the law of the easiest and most pleasant.* It, therefore, throws its governing and ordering activity into this act, and thus obtains a scenery of images, which, though they may in part be diversified from the sensations previously experienced, are, nevertheless, well ordered, for example, in the form of a story, and well connected together. Thus the governing activity, which the sensitive principle has with regard to the images about to be excited, plays here a very large part.

The act, therefore, whereby the image is repristinated is a single act, although it extends to many simultaneous movements in the various fibres of the brain which have to reproduce the image, and this because the sensitive soul can, by a single act, produce several effects to which in its

simplicity it is simultaneously present; so that every different group of effects make sa different single act. The soul, moreover, is very materially helped in determining itself to reproduce, at least in part, the images of which it has had the sensations, by the fact that spontaneity obeys habit, habit being as it were a continuation and reinvigoration of a preceding act, which has not altogether ceased.

1744. To conclude, there is in the animal a single principle guiding all its instinctive operations, and consisting in "the tendency to attain as fully as possible that state of satisfaction which has begun in it;" and this principle must give a marked regularity to its action, and resist whatever is irregular, that is, opposed to that regularity which follows from its nature, at once manifold and one.

SECTION V.

On the Regularity arising from the Rational Principle.

1745. Now, if so much regularity is found in the actions of the animal, there cannot certainly be less in those of the rational principle. But since the term of the rational principle lies in its *object*, it becomes our duty to speak of objective regularity.

Why, then, is it a pleasure to the mind to contemplate what is regularly arranged?

1746. If we consider that a multiplicity of things, when regularly arranged, is easier for thought to conceive and embrace, and that, by the law of spontaneity which governs every agent, the easiest is always preferred, we shall find herein a first reason why it must be pleasant for a person looking at a multitude of things to find regularity in their arrangement. In fact, to be regularly arranged means to be arranged with order, and this means to be arranged according to a single rule, in which the mind sees at a glance what the whole of that arrangement is, what it ought to be.

For example, let us imagine a series of numbers distributed in arithmetical, or geometrical progression. When

we know the difference between the first number of the series and the second, or the quotient of the second divided by the first, we have all that we require for knowing what will be the distribution of all the numbers to come, and we can thus by ourselves easily write down that series to any length we please. From this example it is manifest, that merely by ascertaining the *rule* which governs a given orderly distribution of things, the mind comes to embrace in an abbreviated form the whole multitude of those things in so far as they are regularly disposed, nay even the greatest multitude it chooses to imagine as disposed in the same way.

Those at all conversant with mathematics need not be told that curves are expressed by means of algebraic equations, wherein one is simply furnished with the *rule* according to which all the points assignable in a curve are arranged, in other words, with the order in which those points are locally determined in relation to one another. It is true that the algebraic equation does not present to the imagination the form of the curve; but it offers to the mind the key to know how it may be described at will, either on paper or in the imagination; and this knowledge thus abbreviated and simplified is in the highest degree delightful to the mind, which by means of it is able to know much more than it could by the perception of the senses, a perception always limited to a certain number of individuals. Hence, through the intellective rule, one knows the plurality of things as *species* and not as *individuals*, and this kind of knowledge embraces immensely more than the other.

1747. This is a second reason why the mind loves regularity in any manifold object contemplated by it. Regularity enables it to think the multiple, not only with *greater ease*, but also with *increased knowledge*, and, furthermore, to think that multiple in a way which empowers it to continue the multiplication to any extent whatever. I admit that the mind could change even an irregular multiplicity into a *species*, by contemplating it as detached from sensible

perception; but this would be a most difficult operation, especially if that multiplicity were very numerous. Besides, such multiplicity could not be mentally increased unless the mind had a rule to guide it in that increase, as happens in the case of regular series; hence it would always remain limited.

1748. And here we discover a *third reason* why regularity is delightful to the rational principle, namely, that it renders it fit for action. No sooner is this principle in possession of the rule which orders and arranges a given multiplicity of things in a given way, than that rule becomes to it a principle and norm of action in regard, both, to *reasoning* and to every other kind of rational *operation*.

Let us return to Descartes' immortal invention which reduced curves to algebraic formulæ. As we have seen, to put a curve into an algebraic formula is merely to express the *rule* according to which the points assignable in it are disposed. Now, who does not know how much the possession of these formulæ has aided science in determining a great number of most beautiful properties of curves which would otherwise have remained unknown? But how did mathematicians arrive at these determinations except by basing their reasonings upon the *rule* according to which they found the points assignable in the various curves to be disposed in relation to each other, and expressing these dispositions in formulæ or equations? The discovery of the various formulæ which express the kind of regularity proper to each curve proved a most abundant source of new cognitions. Clearly, then, the knowledge of the rule according to which the regularity of a given multiplicity of things proceeds, is a most fertile principle of ever new truths, which are all virtually contained in that principle.

1749. Here it should be observed, that these truths which are discovered by reasoning in the way we have stated are not merely a source of delight to the mind, but can be applied to practical uses. In proof of this, we need only refer to the marvellous progress that took place in practical mechanics and hydrodynamics in pro-

portion as the *rules* which express in a simple formula the regularity severally belonging to the different straight and curved lines, and to their various systems, were being discovered. Man must, therefore, love regularity in things for this reason also, that in regularity, when he has once found its rule, he possesses a principle which, (1) opens up to him a vast field in which to gather new cognitions, and (2) gives him new and incredible powers of action in the external world.

1750. We will add a *fourth* and more subtle reason. It is that the regularity of things, contemplated by the mind and summed up into a brief rule, aids man to order himself also, and hence to improve himself morally; for so constituted is the human being, that he loves to reproduce in himself the order which he is accustomed to contemplate in his mind. This he must do even instinctively, since the rational principle too has its instinct, and the order of the cognitions existing in the human mind is an instinctive principle of well-ordered action.

1751. But the *fifth* reason of the inclination of the rational principle to regularities is what explains and completes all the others. It flows from the principle of cognition itself, which says: "The object of thought is being." Now, being is, by its essence, one; hence the mind rises all the higher to the contemplation of being, the more it comes to discern the one in the multiple. In fact, what is it to see the one in the multiple? It is to consider the multiple in universal being, to refer all the parts of the multiple to it as their supreme container. Inasmuch, then, as the *good* of the mind consists in its own proper term, it follows that the mind aspires to see all things in universal being where they are found unified. This is the chief reason why the mind loves knowledge by the way of principles much more than by way of consequences. Not only do principles extend infinitely farther than any number of consequences deduced from them, and hence excel them in light; but the consequences themselves, when seen unified in their principles, shine with greater brilliancy. Now, to

know a multiple in that rule which disposes it in regular order, is to know it in its principle. It is true that this latter kind of knowing, taken by itself, is only a sort of initial and virtual knowing, and from this point of view does not stand on a par with knowing the multiple in the consequences. And as, on the one hand, consequences known apart from their principles give only a perceptive knowledge, which is very imperfect because extremely limited as regards the extension of its light; so, on the other, the knowledge of principles alone, without distinction of consequences, is an abstract knowledge, also imperfect, not indeed as regards the extension of its light, which is infinite, but as regards intensity, and from the want of communication with the real world. But when principles and consequences are known together, when the latter are known in the former, as in the case just mentioned of a multiple in which one distinctly sees the rule according to which it is arranged and distributed, then one has that perfect knowledge which fully satisfies the mind, and serves to direct as well as to indefinitely increase the human activity.

1752. Such are the reasons for which the rational principle loves to contemplate things arranged in regular order.

But now, in this *regularity*, and consequently in the *rules* which determine it, there may be no end of varieties. To classify these different rules, and to set forth their properties, would be an immense task, to be attempted by one who desires to compose a treatise on Callology. We shall content ourselves with distinguishing them into two great classes.

1.° The class of *rules* which arrange beings in an external order according to place (symmetry) and to number (proportion). These may be called rules of *Co-ordination.*

2.° The class of rules which distribute beings according to the agreement between interior and exterior, between principle and term (organism), between end and means,

between principles and consequences, between cause and effect, &c. These may be called rules of *Subordination.*

1753. The former kind of regularity is *easier* to recognise, because it appears also in things perceived with the senses.

The second is more *difficult*, and on this account it often seems as if there were no regularity at all in things which do not present the first kind of it. Nevertheless, regularity is there, and of a nobler and more excellent kind. It is from not seeing this, that the gardener who gives a tree the form of a cross, contrary to its nature, thinks he is making it regular because he is forcing upon it a regularity of the former kind; whereas, in fact, he is destroying the regularity proper to the nature of that tree, which is a regularity of the second kind, not understood by that rude gardener or his master.

ARTICLE II.

Continuation.—Does the Sensitive Principle feel pleasure in the Numerical Proportion of its Movements?

1754. But since it is of no small moment to distinguish accurately the species and nature of that harmony which the sensitive principle is fitted to enjoy, from that which is enjoyed by the rational principle alone, let us stop for a moment to consider a saying of Leibnitz, who defined music as "an arithmetic of the soul."

Does the sensitive soul really feel pleasure in numbers and their proportions? Does it enjoy the symmetry of parts? Finally, does it enjoy proportioned movements?

This question calls for many distinctions and reflections.

1755. In the first place, it is certain that whatever the sensitive principle enjoys is *subjective*, is a modification of itself. The intellective and rational principle, on the contrary, enjoys the *object*, enjoys what it knows to be in the object and not in itself, enjoys a good which it considers to be outside of itself and does not refer to itself.

1756. Nevertheless, the sensitive principle too has an extended and multiple term, in which there are symmetry, number of movements, proportion of number and proportion of time among the movements. Does it enjoy all these things?

By what has already been said all objective enjoyment of these different kinds of order remains excluded from it. Such enjoyment belongs solely to the intellective and rational principle. What do we mean by saying: "all objective enjoyment remains excluded from it?" We mean that the sensitive principle cannot enjoy that symmetry and proportion considered as something good and beautiful in themselves and independently of the sentient subject. The rational principle, which considers symmetry and proportion objectively as a good independent of itself, values and praises them even if by some accident they were to prove hurtful to it; it values and praises them purely on account of the excellence which it sees them to have in themselves. If they produce effects that are painful to it, it will pronounce an adverse judgment upon these, will judge them evil (and in such effects there is already a disorder); but by the side of this judgment on the effects, the preceding judgment on the cause, that is, on symmetry and proportion, will remain intact. The good and the beautiful which it admires in them is immutable and eternal, like being. The sensitive principle can do nothing of all this. It cannot know and, consequently, cannot appreciate symmetry and proportion in themselves, but can only feel their effects, and enjoy these if they are good for it. The effect, *i.e.*, the enjoyment derived from the symmetry and the proportion which are found in the term of feeling, is not the symmetry itself, the proportion itself; although it is analogous and corresponding to them, and might even be said to have symmetry and proportion in itself. Consequently, the sensitive principle does not enjoy symmetry and proportion considered as such.

1757. But here it may be urged: By admitting that the

sensible enjoyment also has in it symmetry and proportion, do you not imply that these are enjoyed by it?

We answer: By no means; for, when a given thing is enjoyed, that which is enjoyed is one thing, and the enjoyment itself is another. To say that enjoyment enjoys itself would be a mere logomachy, a making two of what is only one. Enjoyment does not enjoy itself; but man, by it, simply enjoys [has a pleasurable feeling]. If, therefore, in the enjoyment itself, as contemplated by the mind, there appears to be a certain order similar to that of symmetry and proportion, what we must say is, not that the sensitive principle enjoys symmetry and proportion as such, but rather that enjoyment is a kind of living and enjoying symmetry and proportion. Beyond all question, the order of symmetry and proportion existing in things is not enjoyed by those things themselves, but by him who, contemplating them, sees it in them. If, therefore, the rational principle finds symmetry and proportion in the internal constitution of animal enjoyment, it is the rational principle that enjoys this order, has this enjoyment; but the enjoyment is only a perfectly simple fact, ignorant of itself and of its own nature. It follows, that the enjoyment constituted by the symmetry and proportion of its term is still an effect, and not an enjoyment of these harmonious arrangements.

1758. There is, therefore, a marked difference between the questions:

(1.) Does the sensitive principle enjoy symmetry and proportion?

(2.) Does the sensitive principle have enjoyment from the effect which the symmetry and proportion belonging to its term produce in it?

The first of these questions must be answered in the negative. The correctness of this answer is confirmed by the reflection that, if the sensitive principle were fit to enjoy symmetry and proportion, it ought to enjoy all the symmetries and all the proportions that happen to be in its term, exactly like the rational principle which contemplates these orderly arrangements in its object; whereas the fact is the

other way. Experience shows that the sensitive principle, while put into a state of enjoyment in consequence of certain symmetries or proportions assumed by its term, derives no such feeling from other symmetries and proportions that do not cause in it the pleasant effect to which it tends. What this principle enjoys, therefore, is, not the essence, the ground of symmetry, but the effect which symmetry sometimes produces in it, and sometimes not.

1759. Now, it was through having confounded these two perfectly distinct questions, that several thinkers of the highest order, among them Plato and Leibnitz, came to attribute to the sensitive soul a kind of occult and mysterious reasoning, and represented it as capable of calculating, and as being deeply skilled in refined arithmetic and sublime geometry. Errors these undoubtedly were, but sublime errors, which only such rare intelligences could have fallen into, since they alone had succeeded in discovering the symmetries and proportions inherent in the term of feeling, although unfortunately they did not advance so far as to distinguish from them the pleasurable feeling which is their effect. Hence they credited feeling with enjoying the cause which constitutes it; whereas the truth is that feeling does not even know this cause, and, though it has enjoyment in the symmetrical and proportioned term, does not enjoy its symmetry and proportion as such.

1760. It is easy for great minds to fall into this illusion; because it seems as if the sensitive soul performed exactly the same operations as the arithmetician, though, in point of fact, it does nothing of the kind.

Do we wish to see the sensitive soul do what seems to be the adding of two quantities?

Let us imagine that we are crossing a lake in a boat, while another boat passes close by us in the opposite direction. As we look at the boat passing alongside, our eye seems to add together most accurately the velocity of the two boats; because the velocity with which that boat apparently moves is precisely equal to the sum of the two velocities combined.

Do we wish to see the sensitive soul seem to perform a subtraction?

Let us suppose that, while we are rowing slowly across the same lake, another boat follows close by in the same direction, but going at a speed twice or thrice as great as that of ours, what will our eye, in looking at that boat, see? It will see it moving with a velocity exactly equal to the difference between the velocities of the two boats. The eye catches this difference with a precision which no calculator could exceed.

Do we wish to see the sensitive soul seem to go through a multiplication, a division, or, more briefly, to perform these two operations at once, and, for this object, to institute also a true geometrical proportion?

Let us imagine that, while our boat is crossing the lake in a straight line, our eyes gaze upon two ridges of mountains, the one farther off than the other. With what velocity will they see those two ridges move towards each other, if we are approaching, or away from each other, if we are going away from them? To know this, it would be necessary to find out by calculation the distance between the two ridges, and also the distance of the nearer one from the boat. Only a skilled calculator, therefore, would be able to tell you that the apparent motion of the two ridges results from an equation expressing a geometrical proportion. But, for the eye, the problem is instantly solved in the most off-hand way. Without taking any measurements, the eye sees exactly the relative motions of the two ridges proceeding with exactly that velocity which the calculator discovers; and with this difference, that the geometer may err in his reckoning, whereas the result seen in nature by the eye never is wrong.

What shall we say then? That the sense truly calculates? That it estimates velocities more surely than the geometer's mind does? It would be an absurdity to think so; it would, in fact, be transforming sense into a mind much more sagacious than mind itself. We must, therefore, say, not that the sense finds out these results, but

that nature produces them and furnishes them to it ready made. Such indeed, as we said above, is the way in which nature has been ordered, although it neither feels nor knows its own order. The motion which is presented to the eye follows its own laws, and it is presented just as these laws prescribe. What wonder, then, if the sense has for its terms these quantities, so arranged, so proportioned, and if the geometer, when he wishes to know their arrangement and order, must resort to calculations even of a most complicated kind?

1761. Now, if there is order in matter and its movements, clearly there must be order also in the sensorial organs, which are composed of matter. And if it is certain that the sensitive principle tends to have, as its term, a determinate organism, and that one organism suits it better than another, because it enables it to display its activity more fully, need we be surprised to find that this same principle tends to have, in its sensories, certain movements rather than others, and those movements regulated according to certain proportions of extent and time?

1762. We must also consider that the form taken by the direction as well as the communication of motion depends on the configuration and composition of the bodies themselves. For example, a body of a certain shape, on receiving an impulse to motion, makes different movements according to the point at which, and the direction in which, the moving force is applied; but this same force, applied to a body of another shape, will produce another kind of motion. Since, then, the sensorial organs also have a regular configuration, suited to the sensitive principle, the movements of these, if proper, must partake of the same regularity and, therefore, have a certain order.

1763. Moreover, it is natural that one of the elements of this order should be the proportion of the times in which the various motions impressed on bodies are performed. Unquestionably, the communication of motion obeys the law of time, and the same motion, impressed on two bodies, the one of which has double the mass of the other, takes

twice as long to traverse the whole of the larger body and communicate itself to all its molecules. Here, therefore, we have a proportion of time corresponding to the proportion of mass. If the two bodies are of equal densities, and the volume of the one is double that of the other, the communication of motion from molecule to molecule will proceed in the ratio of the volumes. What is said of motion communicated simply by impulse must be said equally or similarly of that motion which takes place by way of affinity or attraction, by way of undulations or vibrations, of simple as well as compound motion, of motion resulting from a single force or from several forces, &c. Now, if we admit the law that "The sensitive principle takes pleasure in completing its acts and does not like being interrupted in the middle of them and made to turn aside and begin new ones," it is clear that the movements which this principle will look for in its term must be such as to stand in a certain time-proportion to each other, and therefore must not be huddled together, intertwisted and confused, but distinct and ordered, so that, through their regular intervals, it may have the time necessary to complete its operations and display all the actualities that are moved by it. The sensitive principle does not, therefore, love this order for the sake of the order itself; but, having always a tendency to the free and complete display of its activity, it feels pain when that tendency is forcibly thwarted and denied satisfaction.

1764. Why is it that in the production of sensations, for example, those of sight and hearing, to a given number and metre of vibrations there responds a perfectly simple sensation, say of white or of red, of the note *re* or *sol?* Does not this manifestly prove, that neither the number nor the proportions of the vibrations enter into our sensations, but that each sensation arises as a single effect of these manifold extra-subjective movements?

1765. It may be objected: The impression of a very powerful light renders the eye insensible to the impressions of a weaker; of two rooms coloured equally red, the first

which you enter seems redder than the second;* a sudden transition from a very high degree of heat to one much lower produces a sensation of cold; and, in general, whenever you happen suddenly to pass from one state of excitation to another, the greater the difference between these states, the more vivid is the sensation you experience. It seems, therefore, that sensation is not produced in the ratio of the absolute action of the eternal stimulus, but in the ratio of the proportion between the various stimuli that succeed one another.—We reply that the facts here alleged do not prove that the sensory feels the proportion of the stimuli, but they prove that the *effect* of this proportion in certain circumstances is a more or less vivid sensation, and this exactly for the reason we have given, viz., because the sensory, in order to complete its acts, requires to be stimulated, not in a hap-hazard way, but with order and proportion. Hence movements too violent or out of proportion may produce a weaker sensation, or even no sensation at all, as compared with movements that are weaker but suitably proportioned.

ARTICLE III.

The different Rules which the Rational Principle applies to a Regular Multiplicity show that there are in that Multiplicity different simultaneous kinds of Regularity.

1766. It is, therefore, the rational principle alone that enjoys symmetrical and proportional *regularity*, in a word, *order*, which is a thing essentially objective; and the reason is that this principle alone discovers and contemplates more or less distinctly the one simple *rule* that determines regularity.

This truth receives fresh confirmation from the following reflection. A given multitude of things may be considered by the mind from different points of view, and

* The harmonious colour that follows red in the optic sensory is the greenish: hence, while we are passing to the second room, the sensation of red which we have just experienced must, in the eye, degenerate into greenish; and this is perhaps why the red of the second room looks faded.

hence may present different regularities, different symmetries, without any change taking place in the real distribution of those things. Now, if different regularities exist in one and the same distribution of things, it follows that these regularities do not belong to the things taken materially, nor to the sense-perception of them, but are constituted by the different points of view in which the mind regards that distribution. But what are these different points of view? Whence comes it that the things are found regularly distributed in different modes? Undoubtedly from this, that the mind sees that that same distribution could have been thus determined by different *rules;* and so the mind can, by applying various rules, see the identical distribution arranged in various forms. An illustration of this may be found in the case of the chess-board.

Everyone knows that the chess-board is a square surface divided into sixty-four smaller squares. The distribution of these squares is one and perfectly simple. But the mind may consider them as collocated and joined together in various modes, and the form they present when regarded in one way is very different from that which they present when regarded in another. If we consider them as squares united by their sides we get a very different design from what we get by considering them as united by their angles. We can even conceive a figure formed out of a certain number of them, which figure, being continually repeated, will exhaust the whole chess-board; and this will give us a new design. Let us take the movements of the different pieces of the game, and, to be brief, let us limit ourselves to three, the castle, the bishop, and the knight. The movement of the castle goes from one end to the other of the chess-board along the line of squares in the direction in which they are united by their sides. Accordingly, if we take the entire row of the eight squares, we shall have the chess-board in a form which may be defined thus: "The chess-board results from eight rows of equal squares united by their sides." Here, then, is a *rule* which determines for us a symmetrical distribution. The bishop, on the contrary,

goes along the squares diagonally, that is, in the direction in which their angles touch. By reckoning, therefore, according to this system of movement, we have the same chess-board arranged in quite another form, whose definition would be, "A square composed of sixteen rows of squares joined diagonally at their angles." The movement of the knight covers three squares, one of them in an oblique direction. These three squares give a peculiar figure, which if we consider as being repeated over and over again until the whole chess-board is filled with it, the result will again be a chess-board presenting an entirely new design, and to be defined as "A square consisting of an aggregate of twenty-one figures composed, each of them, of two straight squares and one oblique, *plus* one straight square."* Thus does the identical real chess-board become different planes with different symmetries, according to the different relations of its figures; in other words, according to the different points of view in which the mind considers it; exactly because these different points of view mean so many different *rules* which the mind employs as principles determining symmetry, in order to conceive symmetry in the ground, the reason on which it rests, as is proper for intelligence to do.

1767. It is, therefore, evident that the *regularity* contemplated by the mind is posited by the mind itself, although the mind could not posit it unless in that multiplicity which forms the object of its contemplation there were certain relations and correspondences with the *ideal* wherein the rules of things are contained. And this reminds us again of the *synthesism* existing between the ideal and the real.

1768. Hence, also, we can understand why the lower animals do not give any indication of their enjoying the beautiful, or even musical harmony; although some of them, *e.g.*, certain serpents, are affected by certain melodies;

* Ancient mosaic pavements seem to have been constructed so as to give as many figures as possible by different groupings of their parts. The result was that, unlike our modern carpets, they did not weary the eye with perpetual sameness. One could discover something new in them every day.—TR.

which, however, is not enjoying the *beautiful*, but the *pleasurable sensible*.

ARTICLE IV.

On the Harmony of Succession.

1769. Multiplicity is either *simultaneous* or *successive*. Hence the harmony observable in it is also either *simultaneous*, on account of the order existing among a number of present things, for example, the symmetry of which we have spoken, the order between the parts and the whole, harmonious sensations, &c.; or else *successive*, on account of the order and agreement existing between the terms of a series of facts that go before and those that come after.

On this successive harmony we have already touched when speaking of the sensitive soul, and have cited as instances of it the imaginary colours and sounds which succeed one another spontaneously in the sensories of sight and hearing. Let us now consider it in the rational principle itself, which properly constitutes man.

1770. The rational principle enjoys order wherever it sees it, for the five reasons indicated.

The rational principle may consider this order as well in a thing different from itself as in its own feeling. The order which man contemplates in his own feeling is what constitutes the *æsthetic beautiful*. Feeling is ordered when it is pleasant. Hence the *æsthetic beautiful* is at once beautiful and sensibly pleasant; whereas the beautiful considered in things outside of one's feeling is *beautiful* without being sensibly *pleasant*, without being æsthetic. This must not be taken to mean that the sight of the beautiful does not please, but that the pleasure derived from the pure beautiful is all intellective; hence, properly speaking, it is the contemplation of it that is pleasant, and not the object of the contemplation, the beautiful itself. On the other hand, in the case of the order of one's own feeling, there is, besides the intellective pleasure of contemplation, the pleasure which constitutes the nature of the thing con-

templated, because what is contemplated is the *pleasant feeling*. In this case the *pleasure* itself is the *rule* whereby to know whether the feeling is properly ordered; and, when I say *pleasure*, I mean the true, natural, prevailing pleasure. Now these distinctions, *i.e.*, between the *beautiful in general* and the *æsthetic beautiful*, and between the *pleasant beautiful* and the *simply beautiful*, have not been duly considered by writers on the beautiful, whom, as a consequence, we find almost invariably confounding the *pleasant* with the *beautiful*, and restricting the most vast science of Callology within the narrow limits of Æsthetics.*

1771. Now it must be remembered that the animal sense (partly owing to the laws of the matter composing it and those of the communication of motion, partly owing to the organism, and partly also owing to the relations which the matter and the organism have with the laws of the sentient principle) is so ordered, that, on receiving the application of a stimulus, it is instantly determined and moved to a particular series of successive movements, and not to any other. Hence, if another series should come in to interrupt and disturb the first, the result would be out of harmony with the sensitive nature and unpleasant. Consequently, the spontaneity of the sentient principle, which invariably tends to the state and act of greatest pleasure, would aid and promote the first series of movements, and feel averse to encouraging the second. Thus, if a violin-string is twitched, it produces isochronous oscillations, which diminish in extent and rapidity in a constant proportion. If, therefore, this string were animate, if it were an organ of sense, it would incline to complete all these oscillations until it came to rest, and would resist any forces that tried to interrupt them, or to alter the isochronism, which is the mode of action most easy and natural to it.†

* The ancients were far less guilty of this confusion than the moderns, especially the Germans. Plotinus, in his famous little treatise, Περὶ τοῦ καλοῦ, distinguishes most clearly between τὸ αἰσθητὸν κάλλος and τὸ νοητὸν κάλλος.—TR.

† The law of the isochronism of oscillations in a violin-string corresponds perfectly with the law by which it is shown that the cycloid is the line of most rapid descent. This remark will serve as a light to those readers who

Now we must consider that, although in the animal there is only one sentient principle, which constitutes it, yet there are many sensories, and that in man, the most perfect of animals, there are very many, as many as are his organs and sensitive appliances, as many as the different kinds of his sensations: and every one of these sensories has a series of successive movements which is connatural and pleasant to it, that is, a series of sensations, through which the first sensation passes before being entirely extinguished.

Moreover, if the external stimuli correspond to the oscillation of the sensory organ in such a manner as to aid it in going through that series of sensations ordered according to a fixed metre, and to render these more vivid, then those stimuli are pleasant; otherwise, they are irksome, troublesome, and more or less painful.

1772. Among the circumstances which go to determine the natural succession of the sensations proper to a sensory organ, there is also the annoyance and weariness which arise when the sensations have not, interposed between them, those pauses, that repose of the organ which refreshes it and restores it to vigour. This need of repose depends on the same law that prescribes the metre of the sensations, determining the intervals between them, their duration, their intensity, &c.

1773. But if the sensories are many, and each of them has its own special metre in the series of sensations which it delights in, how is it that the different sensories do not come into mutual collision when acting simultaneously?—We must certainly suppose that the All-wise Author of human nature has, first of all, harmonized them by means of an admirable organism. In the second place, above them all, and, so to speak, at their head, stands the single sensitive principle which dominates and harmonizes them all, a principle whose prevailing taste is what deter-

have some notion of physics and mathematics, inasmuch as it will enable them to recognise that the isochronism of forces is simply one of those cases in which nature is manifestly seen to be regulated by that most beautiful law which we have called *the law of the least means*. See *Theodicy*, 494-503.

mines the true *pleasure* enjoyed by man. Hence, also, the simultaneous, as well as the successive action of the different sensories, receives a supreme *rule* which determines their times of action, its pauses, its proportions, its intensities, &c.

1774. Finally, in man, besides the *animal feeling*, there are the intellective feeling and the moral feeling, two very lofty feelings, which also have a natural harmony in their actions and in their pleasures. And just as the *intellective feeling*, with its special harmony, which, as being of a more sublime order, ought to prevail, modifies in man the animal harmony, and joins it to itself; so the *moral feeling*, with its special harmony, modifies and tempers the intellective-animal harmony, joining and subjecting it to itself; so that out of all together there results a single harmony with a single most lofty unity.

1775. Hence in man the following harmonies, which merge into one, are fore-ordained and pre-established:

1.° The harmony of the naturally successive acts of the single sensories;

2.° The harmony of the sensories with each other, produced by the unity of the sensitive principle and giving rise to animal harmony;

3.° The animal harmony dominated and informed by the intellective principle, and thus giving rise to intellective-animal harmony;

4.° The intellective-animal harmony dominated, informed and completed by the moral principle. This last is truly the entire harmony of man—human harmony.

1776. In all this complex of harmonious activities there is, pre-determined by nature, a certain succession of acts variously ordered between them.

Man has an *instinct* inclining him to this succession; but this truly human instinct does not always act with full vigour, either on account of some deficiency affecting itself, or on account of the weakness and viciousness of the individual; and when this takes place there arise *disharmonies* in man. But these disharmonies which betoken weakness

and vice in the great human instinct, do not prove that it ceases to act altogether. It does act, and the partial harmonious instincts act along with it; and this complex of activities is what determines the successive dispositions, the propensities and the aversions which individuals exhibit in the course of their earthly existence, nations in their lives, and the ages in their continual revolutions.

1777. Let us apply these principles to explain certain human phenomena.

Whence the continual changes of fashion? Are they the effects of the mere humour or caprice of the vain, or of the schemes of speculators? So it is commonly believed; people are wont to ascribe to accident those things whose cause remains hidden, because too deep, too difficult to discover. But if we carefully consider this singular fact, which manifests itself more or less in all nations that have reached a certain degree of refinement, we shall easily see how impossible it is for the mere *arbitrary will* of the few who first introduce a new style of dress or ornament to make a whole nation accept its fiat with such readiness that it seems, as it were, dragged to that style with one accord and without the power of resistance. Much less can the universal taste shape and change itself every day for the benefit of speculators, who do not form that taste, but speculate upon it. On the other hand, if you ask the *bon ton*, as the French say, of either sex, they will assure you that the new fashions are really the nicest, and that the fashion in vogue for some time, though at first very beautiful, after a while, displeases, annoys, in fact, seems nothing less than an oddity. It is, therefore, impossible not to believe that on the arrival of *the latest fashion* these persons do not really experience an agreeable feeling, and that the preceding fashion really seems to them unsightly. The explanation which we give of this phenomenon, frivolous in appearance, but in reality most worthy of philosophic attention—a phenomenon which shows itself most conspicuously and precociously in capitals—certainly does not justify the fickleness which it implies in the votaries

of so changeable and inexorable a goddess as fashion is. Indeed, we must suppose, first of all, that where fashion begins to establish its reign, the feeling for that complex of sensuous pleasures which fashion itself presents with ever new variations—and which results from an infinite multitude of most subtle elements, ethereal essences, so to speak, forming, as Dante would say, an *indistinct unknown*—has been developed and actuated. In a rude society, or in one that is too young and severe, this feeling remains dormant. Given, then, that such feeling and the consequent instinct has been roused, actuated, refined, we do not hesitate to affirm, that in the invention of the fashions which it every day creates and every day destroys, it is determined by the *law of successive harmony;* which causes this instinct, resulting from innumerable feelings and special instincts, to demand for its gratification just those particular new forms and no others. This wonderful law, therefore, secretly determines the longer or shorter duration of the usages, as well as their kind, and contains the natural reason why, for example, this particular cut for dress is succeeded in preference by that other, this particular colour or this particular form of ornament by that other, &c., as also why the new usage pleases and the old one no longer does so. Hence the pleasure taken in one fashion or usage must not be attributed to its form or quality taken by its isolated self, but to the circumstance of its coming just at the right place in the whole succession of feelings. That the thing is really so, may perhaps be argued also from the fact that sometimes the very usage which during the brief period of its reign seems perfection to the people of one country, looks most clumsy to a stranger just come from a distant region, who has not been subjected to the influence of the whole round of the usages that preceded the one in question. A secret law, therefore, determines the course of usages and frivolous customs by what may be called a kind of fatality. A harmony pre-established by the nature of feeling produces them one after another; and where this feeling is most delicate and

keen, as in capitals, there it pronounces most readily and accurately the thing that suits it, and the pronouncement is received by the public as a kind of interpretation of the common taste, which is thus satisfied, finding therein what it vaguely desired without being able to give it shape or existence. Certainly the docility with which every new fashion is received is due to innumerable little feelings, belonging, as we have said, to different sensories, to different faculties, each of which has a succession of acts which it prefers to every other, because every faculty is a sense, and, as such, is subject to the same law.

1778. This explains, in like manner, how it is that the course of fashions and social manners differs with different nations. Different circumstances give different dispositions to the *sense* of these things, and determine them, with an equal fatality, to a different course.

1779. But the *law of successive harmony* applies to other and greater things than fashion and social manners. Indeed, if we attentively consider, we shall find that it prevails to an extent surpassing all belief, so that it has an immense influence in determining the various customs of peoples, the currents of their opinions, and even the succession of historical events.

The taste for art and literature maintains the same order. Even ideas gain and lose in splendour with the changes of times, in accordance with secret but inexorable laws; and this is one of the reasons why it would have been impossible for the Romans of the time of Horace and Ovid to set their hearts on practising the stern virtue of the Cincinnati, the Curii, and the Fabricii. Having undergone a vast moral deterioration, the later Romans were no longer capable of the feeling for such virtue, although they retained the highest admiration for it in their minds; for the mind does not change, because it contemplates the immutable true and the immutable beautiful, which, unlike the sensible pleasant, knows no succession.

Many other facts also are subject to the same law. Why, at this or that particular time, do certain universal

tastes irresistibly manifest themselves? Why certain opinions, certain characteristic ways of action?—If to the law of *harmonious succession* we unite the law of the spontaneity of direct life, this phenomenon will be fully explained; the apparent leap will disappear, because that leap will be seen to be merely a sudden manifestation, in reflection and consciousness, of a work which was previously going on within men inadvertently and unconsciously.

It is enough for us to have alluded to this subject, which offers a vast field for meditation. The philosophers who come after us, and have more leisure and capabilities than we, will perhaps be able to cultivate it with profit.

N.B.—A General Index of Authors, of Scriptural Quotations, and of Matters, will be given at the end of Vol. III.

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PSYCHOLOGY.—VOL. II.

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PAGE	LINE	*ERRATA.*	*CORRIGE.*
255	last	τὴν ψυχὴν	τὴν ψυχὴν
266	23	to apprehending them . . .	(Add as a *note.*) The [animal] sense by perceiving the continuous in space, where certainly the continuous is found, perceives, as a matter of course, every minute space assignable in a larger one. But this does not mean that it also perceives every minute space as separate and isolated from the larger space.
282	38	although Gäetano	as Gäetano
354	5	θιορίζηται	διορίζηται
,,	9	ἄγνωσα αὐτὰ	ἄγνωστα αὐτὰ
,,	16	ἐπισήμης	ἐπιστήμης
368	41	διαρετά	διαιρετά
377	3	ἑωυτοῦ	ἑαυτοῦ
381	13	That is, plainly, ...	This is, plainly,
383	3	means that which	means that than which
415	9	but always unites it	but this reason always unites it
520	34	φρυμῶν	φρυγῶν